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CROSSING AESTHETICS

TECHNICS AND TIME, 3

Cinematic Time and the Question of Malaise

Bernard Stiegler

TRANSLATED BY STEPHEN BARKER

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For Jacques Derrida

Contents

To seem like a god, mankind today does not feel happy.

—Sigmund Freud

I had a viewpoint from which a human sacrifice, the construction of a church, or the gift of a jewel had no less interest than the sale of wheat.

—Georges Bataille

The spectator's emotion and reason are re-discovered in the process.

—Sergei Mikhailovitch Eisenstein

I am a prisoner of commercial compromises. I wanted to make movies by abandoning myself to my ideas, but that would only be possible if a film came in no more expensive than a pen or a sheet of paper. What would happen if one gave a painter a blank canvas worth a million dollars, a palette worth $250,000, $300,000 worth of brushes, a $750,000 box of paints, and then told him to do whatever he wanted to according to his inspiration, but without forgetting that the finished painting would have to bring in $2,300,000?

—Alfred Hitchcock

Contemporary industries must still provide cracks of free access through which the dream of poetic adventure can slip. They are rare. RTF sometimes gives in to such intrusions. It is certainly the only one in the world. Many thanks to it.

—Pierre Schaeffer

Sometimes modern man is overwhelmed by the numbers and the grandeur of his means. Our civilization tends to make seem indispensable to us an entire system of marvels issuing from the impassioned and combined work of a considerable number of great men and a crowd of smaller ones. Each one of us tests the benefits, carries the weight, receives the sum of this secular totality of truths and capitalized receipts. None of us is capable of passing up this enormous heritage; none of us is capable of supporting it. There is no longer a single man who can even envisage this crushing totality.

—Paul Valéry

The possibility of pursuing growth is itself subordinated to a given: the industrial development of the entire world requires that Americans clearly understand the necessity, for an economy like theirs, of having a periphery of non-profit organizations. An immense industrial network cannot be handled like changing a tire. . . . It is the expression of cosmic energy on which it depends, that it cannot delimit, and whose laws it can no longer ignore without consequences. Woe to the one who to the bitter end wishes to control this movement that far exceeds him, with the narrow-mindedness of the mechanic changing a tire.

—Georges Bataille

Notice

This third volume of *Technics and Time: Cinematic Time and the Question of Malaise* could be read as autonomous: while the problematics addressed in volumes 1 and 2 are requisites for an understanding of this one, they are re-introduced, excavated, and re-examined here. In certain respects one might even say that *Cinematic Time and the Question of Malaise* constitutes a good introduction to *The Fault of Epimetheus* and *Disorientation*.

Five years passed between the publication of *Disorientation* and the completion of this volume. This third part of *Technics and Time* was already in nearly finished form by 1992 and could have—should have—appeared soon after *Disorientation*. A number of things contributed not only to the delay in its publication but to profound modifications in both its contents and the order of its publication. The work that was originally to have been the third in the series (and will now be the fifth and last), *The Necessary Default* [*Le défaut qu'il faut*], has now been displaced by *Cinematic Time*, and by another volume that will appear next, *Symbols and Diabols, or The War of Minds*.

I already felt when I sent *Disorientation* to Galilée that what would have appeared next, *The Necessary Default*, did not seem to connect with the first two volumes as I wished it to: the force of the requisite connective evidence was lacking; the text did not seem to emerge from an undeniable necessity, and some work remained to be done regarding the initial and grounding idea of the work as a whole—particularly since the first version of what was to become the *last* volume of *Technics and Time* had been written twenty years ago and still constituted, at that moment,

the starting point for the entire project, including the present volume, as an introductory discourse to the *necessary* default, to what defaults *are*.

While revising *Disorientation* in the 1990s I noticed this *connective fault* [*défaut d'enchainement*]: reading Kant's *Critique of Pure Reason* more closely as the very heart of modern philosophy, but also as the focal point of the idea that, despite many previous readings, had escaped me. Re-reading it then led me to feel immediately that I had made a major step toward identifying a kind of familiarity with or understanding of this idea that I had previously seen only indistinctly. I sensed that this hypothesis, were it to be validated, was of great importance for the rest of my work.

This hypothesis, laid out in this volume, required five more years to be completed; it was interrupted by a rupture in my professional life: following work I completed as part of my activities at the University of Compiègne, I became general director at the National Audiovisual Institute (INA) in spring 1996 and remained there until 1999. These were three infernal years rich with adventures that, though they left me exhausted, contributed a great deal to this book, whose completion permits me, after the fact, to celebrate that challenging test as also having been an opportunity, especially since the kind of slow reflection I had just experienced with Kant was all the more necessary. Yet though inundated by duties that left little time for work (i.e., for thinking) and hardly even for my immediate professional obligations, *that* nonetheless continued to work within me: *that* being the *Critique of Pure Reason* and the reading I had done of it in 1995. Indeed, the idea had invaded me: without my being conscious of it, it was working away in me even while I was busy with work that seemed to me to be of a completely different order.

This third volume appears, then, as constituted *precisely* through an encounter between a Kantian question and concerns with which I was occupied at INA: the development of the new industry of temporal objects.

Maignelay-Montigny, November 14, 2000

Abbreviations

AH	Adorno and Horkheimer, *La dialectique de la raison*
AP	Kant, *Qu'est-ce que s'orienter dans la pensée?*
AT	Resnais, *L'Avant-Scène Cinéma*
Bad	Badiou, *Ethics*
BT	Heidegger, *Being and Time*
CES	Husserl, *The Crisis of European Sciences and Transcendental Philosophy*
CIT	Husserl, *On the Phenomenology of the Consciousness of Internal Time*
CJ	Jacob, *The Sovereign Map*
CL	Barthes, *Camera Lucida*
CPR	Kant, *Critique of Pure Reason*
DA	de Tocqueville, *Democracy in America*
DL	Landes, *Revolution in Time*
DR	Deleuze, *Difference and Repetition*
EN	Aristotle, *Éthique à Nicomaque*
ET	Stiegler and Derrida, *Echographies of Television*
FA	Albera, *L'art du cinéma et autres écrits*
FC	Heidegger, *The Fundamental Concepts of Metaphysics*
FF	Furet and Ozouf, *Lire et écrire*
FN	Nietzsche, *On the Future of Our Educational Institutions*
GB	Bataille, *Lascaux or the Origins of Art*
GS	Leroi-Gourhan, *Gesture and Speech*
Her	Herder, *Ideas for the Philosophy of History of Humanity*
Höl	Sophocles, *Antigone*
HS	Schiller, "Toward a New Century of American Imperialism"
IG	Simondon, *L'individu et sa genèse psycho-biologique*

IIE	Mondzain, *Image, Icon, Economy*
IM	Heidegger, *Introduction to Metaphysics*
Int	Stiegler, "Temps, technique, et individuation dans l'oeuvre de Simondon"
IPC	Simondon, *Individuation psychique et collective*
JFA	Abramatic, *Développement technique d'internet*
JG	Godard, *Introduction à une véritable histoire du cinéma*
JL	Locke, *Second Treatise on Civil Government*
KPM	Heidegger, *Kant and the Problem of Metaphysics*
LG	Leroi-Gourhan, *Milieu et techniques*
LI1	Husserl, *Logical Investigations 1*
LI2	Husserl, *Logical Investigations 2*
ME	Simondon, *Du mode d'existence des objets techniques*
MI	Deleuze, *The Movement Image*
MT	Bensaïd, *Marx for Our Times*
NA	Prigogine and Stengers, *La nouvelle alliance*
NE	Aristotle, *The Nicomachean Ethics*
OT	Bourdieu, *On Television*
PA	Aubenque, *La prudence chez Aristote*
PF	Orléan, *Le pouvoir de la finance*
PI	Heidegger, *Phenomenological Interpretation of Kant's Critique of Pure Reason*
PM	Sophocles, *Antigone*
PN	Frodon, *La projection nationale*
PS	Hegel, Preface to the *Phenomenology of Mind*
PV	Valéry, "Remarks on Intelligence"
PVO	Valéry, *Oeuvres complètes I*
RBR	Kant, *Religion Within the Bounds of Bare Reason*
RM	Valéry, *Regards sur le monde actuel*
RNC	Balibar and Wallerstein, *Race, Nation, Class*
TR	Ricoeur, *Temps et récit III*
TT1	Stiegler, *Technics and Time, 1*
TT2	Stiegler, *Technics and Time, 2*
UH	Kant, *The Idea for a Universal History from a Cosmopolitan Point of View*
WB	Benjamin, "The Work of Art in the Age of Mechanical Reproduction"
ZB	Brzezinski, *Between Two Ages*

§ Introduction

In the last chapter of *Disorientation*, I introduced a thesis claiming that *industrial temporal objects* are the new century's determining elements:

> The programming industries, and more specifically the mediatic industry of radio-televisual information, mass-produce temporal objects heard or seen simultaneously by millions, and sometimes by tens, hundreds, even thousands of millions of "consciousnesses": this massive temporal co-incidence orders the event's new structure, to which new forms of consciousness and collective unconsciousness correspond.[1]

I repeated this same idea, though in another form, on the fourth page:

> An object is "temporal" when its flow coincides with the stream of consciousness of which it is the object (example: a melody). In this new calendarity, the "stream of consciousness" of global collectivity unfolds simultaneously with the temporal flow of the products of the programming industries, resulting in a disruption of the very process of *eventization* (of "what happens," what takes *place*, what *conjugates* space with time, *as* time). This disruption also affects the biological event, orders digital "real time," etc.
>
> To analyze the industrialization of memory is to re-open the philosophical question of *synthesis* (the unity of the stream of consciousness, of judgment)—but with new baggage: a state of rupture with what, within philosophy, cannot think synthesis that is already prosthesis.[2]

It is this question of synthesis, thought separately from any originary prostheticity, that will constitute the heart of the reflections I offer here through a reading of Kant's *Critique of Pure Reason*.

Since [the appearance of] *Disorientation*, within the context of the dissemination of industrial temporal objects that has suddenly accelerated and become more complex through the intense process of digitalization that in the network of networks commonly called the internet characterized the concluding decade of the century just past, this question has been posed with increasing clarity. The internet has become the implementer of standard interoperability among digital infrastructures, called TCP-IP, that has made innumerable new services, tools, and uses possible and that, combined with new standards for text, image, and sound compression, has allowed for the colossal phenomenon we now know as the convergence of informational, telecommunications, and audiovisual technologies (to which we must now, with the development of mobile technologies, add "roaming," the computerization of automobiles, and the new standards of multimedia mobile communications—UMTS—new technologies from metallurgy and the automobile industry).

The resulting disruption, universally recognized as vital to industrial societies and as a decisive stage in the "globalization" process, has been but a first step. The second step, which is taking place currently and which will only result in an increase in digital networking, will produce a new kind of temporal object: one that is *delinearizable* and *inseparable*, produced by hypervideo technologies.

In addition to the concretizing of the processes now in and about to take place, there will doubtless be an increase in the amount of time spent in front of screens of all kinds, which will be then re-conceptualized and redefined in their functions (becoming terminals of tele-action), their various applications expanding into the thousands, most notably at the professional level; these processes will pursue, at an increasingly complex level and with increasing ease and sensitivity, the industrial temporalization of consciousness. This convergence (cf. Chapter 3 below, and *Technics and Time, 4*), in bringing together industrial logistics (informatics), transmission (telecommunications), and the symbolic (audiovisuals), also integrates the functions of technological, industrial, and capitalistic mnemotechnical systems into the technical systems producing material goods (cf. Chapter 4), in turn facilitating the transmutation of the *industrial* world into the *hyperindustrial*, and subordinating the entire worlds of culture, knowledge, and the mind, along with artistic creation and advanced research and instruction, to the imperatives of development and the market.

Markets are above all *consciences*—acting as places for exchange by

consumers whose consciousnesses are themselves consumer "goods," and for market financiers whose "consciousnesses" are investors and speculators. Yet at the moment at which management has orders to react in real time, thus producing *reactivity* in the double sense of the word (in terms of management, as rapidity and ease of *adaptation*, and in Nietzschean terms, as *ressentiment* and group behavior *against exceptions*), the functional integration of the symbolic and logistic industries produces total control of markets as collectivities of a temporal stream of consciousness always in need of being *synchronized*.

A consciousness, in the eighteenth- and nineteenth-century sense of the word, is *essentially free*, that is, *diachronic*, or perhaps exceptionally, singularly, *irreducibly mine*—this could also be called *ipseity*. *Diachrony* and *synchrony* are tendencies that form and re-form ceaselessly, and we will see that they cannot be in opposition over a significant amount of time without tragic consequences. Yet their *composition* is precisely what from the hyperindustrialization of temporal objects constitutes the possibility of *de-composition*.

Yet as evident and ineluctable as the integration of the logistic (digital) and the symbolic (alphabetic and analogic) industries may be, nothing indicates that such an integration will always be effective in its (or any) current form—contemporarily, as the systematic and unlimited exploitation of consciousnesses for "market access." Consciousness as a temporal object is always *in* struggle, today as a core issue of the *current* industrial revolution, as it builds the conditions necessary for what I call in Chapter 3 a *new commerce*—in the broadest sense of the word.

The second half of the twentieth century, through the hegemonic installation of a *tele-vision system* (a billion global tele-viewers as long ago as 1997, but now the entire global population—that is, global consciousnesses—being affected by the same industrial temporal objects) became the era of the initiation of a tele-*action* system. This evolution will continue and expand what began with television as a process of profound transformation of the very *activity* of consciousness, activity that is temporal both in the sense that like a melody it perpetually unfolds, appearing (and *only* appearing) while *dis*appearing, and in the sense in which it is formed in history and evolution, since it is not a synchronic given but a conquest, a result, and a passage. There are countless forms of consciousness, even if their *tendencies*, *metastable structures*, and *ideal objects* are preserved across these evolutions.

Prostheticity is a decisive element in such transformations when, as we will see, it creates conditions for what Kant calls *schematism*, the implementing of new forms of what in *Technics and Time, 2* I call *tertiary retentions*, the material inscription of the memory retentions in mnemotechnical mechanisms I have defined in relation to the Husserlian concepts of primary and secondary retention (a connection to which I will return in the first chapter below). Prosthetization of the synthesis that always includes the flux of consciousness (i.e., Kant's sense of synthesis), with the industrial production of temporal objects, *can* reach a stage at which the transformation of this consciousness is simply destroyed. This means that the current prosthetization of consciousness, the systematic industrialization of the entirety of retentional devices, is an obstacle to the very individuation process of which consciousness consists.

The development and integration of logistic and symbolic technologies mean a *loss of individuation* in the sense in which Gilbert Simondon analyzes it with regard to the manual laborer and the nineteenth-century machine-tool, the "technical individual" replacing the worker who, having had his skills exteriorized, could therefore no longer be *individuated* but was instead condemned to be *proletarized*.[3] The confusing of the logistic with the symbolic—their *non-critical integration*—has led to a straightforward proletarization of the mind and to the pauperization of the culture.

The result has been a slow destruction of the unifying capacities of the temporal flux in which individual consciousness exists and the destruction of its capacity for *projection*—for *desire*—which can only be *singular* (objective): if an individual consciousness is cut off from "world," it aims either at embedding itself in the archi-flux of the programming industries or being trapped in the webs of "user profiling"—whose goal is to subdivide and *tribalize* them into subcommunities through devices that can observe the behavior of the programmed consumers within the wide variety of informational internet content that then, on the basis of those observations, can create models for the hypersegmentation of the target audiences of advertising, while still giving them the impression that the system is responding to them *personally*; this is obviously pure illusion, since this *system* is always one of industrializing what had never been industrializable—individual *behaviors*—thereby reinforcing them until the consumer, being locked in, can no longer escape; she can be perfectly anticipated and controlled, no longer an individuated and individuating

"person" but in a real sense *Nobody* [*personne; outis*], a perspectiveless cyclops.

This loss of individuation, in which *I* persists as a yawning void, no longer moving toward a *We* who, being everything, the confusion of all possible *I*'s in an undifferentiated flux (the totalitarian model of "community"), is condemned to dissolve into a globalized, impersonal *One*. This loss of individuation leads to immense existential suffering: in the most tragic cases, this *quasi-inexistence* produces multiple personalities, and the danger of taking deadly drugs, of violence, tribal or individual, and suicide, which in France has become the second most common cause of death in adolescents and the most common in young adults.

This is the inescapable *malaise* at work today. It would be possible to say that in certain respects this malaise is precisely, itself, "the age of the contemporary being"—were one to think that "the question of being" as Heidegger sees it is still a salient question, and if the contemporary version of the concept has not been completely transformed by a radical parallel shift in the meaning of *becoming*—that is, if "the question of being" is not now dominated by an *ontological indifference*; if this malaise is not the border, the limit, the very question of being within the ever-returning question of suffering: *mis-becoming* as the agent of *becoming-ill*.

The loss of individuation that Simondon shows characterized the nineteenth century is also for him the central characteristic of the initial age of a new process of "individualizing" that he calls "mechanology."[4] Following on Simondon's suggestions will lead us to a critical enterprise in a new sense, a sense still virtually unheard of in philosophy from Kant to Marx and beyond.[5] This new critique's possible path is thus what will guide our investigation here, as a critique of contemporary *reality* in the spirit of the Frankfurt School's "social critique," assuming it is still possible—and not only possible but necessary, at the cost and on condition of a radical critique of the very roots of modern thought that still remains largely to be undertaken.

As Heidegger understood (in his own inimitable style), the *properly critical* moment in Kant's thought is the moment in which Kant makes a *choice*, facing the critical *question* par excellence (though more or less blindly), if not within the history of being then at least within the history of modern philosophy, in a manner so limited that it has long circumscribed the framework of *all* critique; this question, then, catalyzes my

inquiry regarding the critical moment in Kant's *schematism*: the question of the Transcendental Deduction.

My central ambition in this volume is to re-visit and contemporize this transcendental moment as *cinematic consciousness* constituting an archi-cinema, at which we will look in Chapter 2 after working through "cinematic time," in the sense in which this phrase designates the art and method of actual filmmaking, which will be the focus of the first chapter.

This in turn will re-direct us to the issue of knowing what kind of orientation for thought is possible in an age in which, having become techno-science and thus dismissing the classical model of science by which Kant operated, it is confronted by the need to decide among a set of possibilities that are just so many fictions—but fictions at the heart of which is the very question of *making a difference*, within ontological *in*difference, as, for example, the fact that it must be possible to distinguish, although all films are only cinema, between good and bad films. This re-opening of the question of orientation—and dis-orientation—which in turn re-activates the Kantian issue of the subjective principle of differentiation, and the theological grounding that is inseparable from it, will occupy us in Chapters 4, 5, and 6.

Horkheimer and Adorno address schematism by framing their structural critique as an encounter with the American culture industry. The resultant discourse is obviously at once lucid (if not prophetic) and erroneous (if not reactionary); it is in some respects among the first clear expressions of the current malaise, seen as a malady that is in the end not to be apprehended nor distinguished, nor even, properly speaking, critiqued, since it is everywhere—as *the very material of becoming*; this results in a dis-oriented reading of the *Critique of Pure Reason* that is both non-problematic and a-critical. What I read into their analysis, brought back to life after fifty years, which is at once an examination of the United States and a prescient expression of the contemporary malaise as emanating *from* a United States in which industrial technology has played such a central role,[6] just as in the malaise that now *submerges* the public sphere, is the crux of a much more general blockage of thought—and much more than thought.

The situation being critiqued here has a very long life that is far from over—indeed, that may just have begun to pass through us. In both *The Fault of Epimetheus* and *Disorientation* I explore the question and the

conditions of this *passing*, a passing that *is time*. And I explore the question of, and the conditions for, an exceptional contemporary *epochality*, whose exceptional difficulty is what I have characterized elsewhere as the "epochal double re-doubled." I have called "epochal" the opening out of the conditions of and for any new epoch, suspending the programs in force in the (any) *passing* epoch.

In *The Fault of Epimetheus*, I attempt to show

> —that these conditions are always rooted in the dynamic potential of what Bertrand Gille calls the system of technics proper to each epoch that, when it enters into a revolutionary phase, constitutes a first epochal re-doubling and a first suspension of programs;
>
> —that an epoch is only *clearly* constituted as such when "the suspension of programs" engendered by the technical system leads to the constituting of new programs and to a second suspension—a re-doubling of doubling—through which a new unity of space and time is constructed, a new psychic and collective individuation.

The first "moment" of such epochality is that of a process that could be characterized as *becoming technical*; the second is that of the *transformation of this becoming into a future*.

Today, the conditions of the second re-doubling are not integrated.

The re-doubled double has no *place*. *Becoming*, which has been *disrupted*, does not produce a *future*.

§ 1 Cinematic Time

Desire for Stories / Stories of Desire

The propensity to believe in stories and fables, the passion for fairy tales, just as satisfying in the old as in the very young, is perpetuated from generation to generation because it forges the link between the generations.[1] Insatiable, they hold out the promise, to generations to come, of the writing of new episodes of future life, yet to be invented, to be fictionalized [*fabuler*].

This ancient desire for narrative(s) still orders modern society: it animates the most complex, and most secret, of social movements. But the conditions of this desire's satisfaction have been radically transformed; it has become the object of a global industry.

What Horkheimer and Adorno call "cultural industries" now constitute the very heart of economic development, whose most intimate power is clearly always the most ancient desire of all stories, and the key to (all contemporary) desire in general; but this desire is currently, in fact, increasingly subjugated to the developmental conditions of the technical transmission industries that by the end of the twentieth century and the beginning of the twenty-first have, in the sense that when we ponder the conditions of the very possibilities of transmission at least as an act of inheritance, succeeded in becoming both a genealogical connection and the *enunciation* of that connection between generations.

Global commerce now develops by mobilizing techniques of persuasion owing everything to the narrative arts. There is no event, no moment, independent of the desire for stories. Media networks and the

programming industries exploit this fictionalizing *tendency* by systematizing the specific resources of audiovisual technics. And within the horizon of these immense technological and social issues, *cinema* occupies a unique place. Its technics of image and sound—now including informatics and telecommunications—re-invent our belief in stories that are now told with remarkable, unparalleled power. But at the same time, these technical powers cast doubt on and sow incredulity into the future of a world to whose disruption they have already greatly contributed.

If cinematic narratives' influence on the public results at its most fundamental level from a desire for the most ancient stories, and if this is a desire that can be found in every age, and if that underlies every era of the arts and all techniques for making such stories believable, it is all the more necessary that we analyze—and in detail—the *uniqueness* of the techniques that appeared specifically with cinema, techniques that more than any others in history have organized the programming industries' production practices, and we must do this in order to account for the incomparable efficacy of "the animated sound-image," to understand the extraordinary belief-effect it produces in the spectator: to explain how and why the cinema, in *becoming television* (i.e., the technical network as producer and diffuser of symbols through a global industry), combines the universal desire for fiction and, through it, conditions the entirety of humanity's evolution, though always at the risk of exhausting its desire for stories.

This analysis is all the more necessary since that cinematic singularity in turn reveals another singularity: that of the "human soul" as such; the cinematic techno-logically exhumes the "mechanism" of "hidden art" in its "depths."[2]

Boredom

Which one of us, on a gloomy autumn Sunday afternoon, one of those afternoons when one feels like doing nothing, bored even with not wanting to do anything, has not had the desire to watch some old film, no matter which, either at some nearby movie house, if it is in town and there are a few dollars to waste, or on video or DVD at home—or (last resort) just turning on the television where in the end there is no film but some very mediocre series, or indeed *anything*? Just to be lost in the flow of images.

Why don't we turn it off and pick up a book—a book, say, in which we could find a really good story, strong and well written? Why, on such a Sunday afternoon, do those moving images win out over written words in beautiful books?

The answer is that we need only look. And even if what we are looking at is completely inane but the filmmaker has somehow been able to exploit the video-cinematographic possibilities, the cinematic will attract our attention to the passing images, no matter what they are, and we will prefer to see them unfold before our eyes. We become immersed in the time of their flowing forth; we forget all about ourselves watching, perhaps "losing ourselves" (losing track of *time*), but however we define it, we will be sufficiently captured, not to say captivated, to stay with it to the very end.

During the passing ninety minutes or so (fifty-two in the case of the tele-visual "hour") of this *pastime*, the time of our consciousness will be totally passive within the thrall of those "moving" images that are linked together by noises, sounds, words, voices. Ninety or fifty-two minutes of our life will have passed by *outside* our "real" life, but *within* a life or the lives of people and events, real or fictive, to which we will have conjoined our time, adopting their events as though they were happening to us as they happened to them.

If by some lucky chance the film is a good one, we who are watching it in complete lethargy, the core validation of the animated sound-image by which we can leave everything behind and still be completely uninvolved—not even (as with a book) following written sentences and turning pages, careful not to lose the gist of the story; indeed, if the film is good, we come out of it less lazy, even re-invigorated, full of emotion and the desire to do something, or else infused with a new outlook on things: the cinematographic machine, taking charge of our boredom, will have transformed it into new energy, transubstantiated it, made something out of nothing—the nothing of that terrible, nearly fatal feeling of a Sunday afternoon of nothingness. The cinema will have brought back the expectation of *something*, something that must come, that will come, and that will come to us from our own life: from this seemingly non-fictional life that we re-discover when, leaving the darkening room, we hide ourselves in the fading light of day.

Cinema's Two Fundamental Principles

In cinema we never have to be wary of losing a text's development: there is no text. And where there is none, it enters us without our having to look for it. Cinema weaves itself into our time; it becomes the temporal fabric of those ninety or fifty-two minutes of unconscious consciousness that is characteristic of a being, a film viewer, strangely immobilized by motion.

This is true because of cinema's two fundamental principles:

1. Cinematographic recording is an extension of photography; photography is an analog recording technique (which I analyze in *Technics and Time, 2* [12]), like the reality effect Roland Barthes describes in showing that a photograph's *noēme* is its "that-has-been":

> I call "photographic referent" not the *optimally* real thing to which an image or a sign refers but the *necessarily* real thing which has been placed before the lens, without which there would be no photograph. Painting can feign reality without having seen it. . . . In Photography, I can never deny that *the thing has been there*. There is a superimposition here: of reality and the past. . . .
>
> Looking at a photograph, I inevitably include in my scrutiny the thought of that instant, however brief, in which a real thing happened to be motionless in front of the eye. I project the present photograph's immobility upon the past shot, and it is this arrest which constitutes the pose.[3]

The instant of the snap coincides with the instant of *what* is snapped, and it is in this co-incidence of two instants that the basis of the possibility of a conjunction of past and reality allowing for a "transfer" of the photograph's immobility in which the spectator's "present" coincides with the appearance of the spectrum.

2. The cinema adds sound by including *phono*-graphic recording. The phonogram, like the photo, results from an analogic technique of artificial memorization, which is why what is true of the photo is also, to a large extent, true of all phonograms: listening to a recorded concert, I must include in my listening experience the fact that the concert "has been," has already taken place. But the photo's truth is only the same as that of the phonogram to a certain point, since in the phonogram I am dealing with a fluid object, with an unfolding that changes the terms of analysis: the aural object is itself a flux in which it is impossible to isolate

a moment of sound: it does not have a Barthesian "pose"; it emerges from the phenomenology of what Husserl calls "temporal objects."

Cinema can include sound because film, as a photographic recording technique capable of representing movement, is itself a temporal object susceptible to the phenomenological analysis proper to this kind of object. A film, like a melody, is essentially a flux: it consists of its unity in and as flow. The temporal object, as flux, coincides with the stream of consciousness of which it is the object: the spectator's.

The power of these two cinematic principles, and thus of the singularity of cinematic recording techniques, results from two other co-incident conjunctions:

> —on one hand, the phono-photographic coincidence of past and reality ("there is a double conjoint position: of reality and of the past," which induces this "reality effect"—believability—in which the spectator is located, in advance, by the technique itself);
>
> —on the other, the coincidence between the film's flow and that of the film spectator's consciousness, linked by phonographic flux, initiates the mechanics of a complete adoption of the film's time with that of the spectator's consciousness—which, since it is itself a flux, is captured and "channeled" by the flow of images. This movement, infused with every spectator's desire for stories, liberates the movements of consciousness typical of cinematic *emotion*.

Consciousness of "Cinematic Illusion"

In *The Movement Image*, Gilles Deleuze reverses what Henri Bergson in *Creative Evolution* calls the "cinematic illusion," which Deleuze summarizes thus:

> Cinema, in fact, works with two complementary givens: instantaneous sections which are called images; and a movement or a time which is impersonal, uniform, abstract, invisible, or imperceptible, which is "in" the apparatus, and "with" which the images are made to pass consecutively. Cinema thus gives us a false movement—it is the typical example of false movement. But it is strange that Bergson should give the oldest illusion such a modern and recent name ("cinematographic"). . . . Does this mean that for Bergson the cinema is only the projection, the reproduction of a constant, universal illusion? As though we had always had cinema without realizing it?[4]

Deleuze is certainly correct in objecting to Bergson's idea that the production of illusion is "also its correction, in a certain way." But he still does not draw out all of the consequences of his own argument—precisely because he does not take into account the specificity of this reproduction as a technique of analogico-photographic recording integrating the Barthesian "that-has-been," and as the fusion of instantaneous poses within the flux of a temporal object. Thus, it seems, he fails to explain what it means to have "always had cinema without realizing it," and thus to account for the power of the animated image.

It is Husserl who thinks through the temporal object. But to critique Bergson and Deleuze in Husserl's name is a delicate matter: Husserl himself completely neglects the phenomenon of recording in his analysis; in fact, he even excludes it. I have tried to show in the two previous volumes of *Technics and Time* that in so doing he commits a grave error,[5] which has led me to hypothesize an *essentially* cinemato-graphic structure for consciousness in general, as if it had "always had cinema without realizing it"—which explains the singular power of cinemato-graphic persuasion. This volume is dedicated to the development of that hypothesis. In order to accomplish this, in what follows I will have to summarize the essentials of what was established in the concluding chapter of *Technics and Time, 2*, "Temporal Object and Retentional Finitude"—but with regard to a new problemic: the "Kuleshov Effect."

The Kuleshov Effect

Working through the concept of the temporal object in the fifth section of *Logical Investigations*, Husserl attempts to account for the temporality of all consciousness as a structure of flux. The question is thus to analyze the phenomenological conditions constituting this flux. But it is impossible for Husserlian phenomenology to engage in such an analysis of consciousness: its structure being intentional, consciousness is always consciousness *of* something; it is only possible to account for the temporality of consciousness by analyzing an "object" that is itself temporal.

Husserl discovers this object in 1905: melody. A melody is a temporal object in the sense that it is constituted only in its duration. As a temporal object its phenomenality is flow. A glass—say, a plain glass of water—is clearly a temporal object in the sense that it exists *in time* and is thus

subject to universal physical laws and to entropy: it is temporal because it is not eternal. This is true of all "real" objects. But a properly temporal object is not simply "in time": it is *formed* temporally, woven in threads of time—as what appears in passing, what happens, what manifests itself in disappearing, as flux disappearing even as it appears. And the properly temporal object is the ideal object constituting the temporal fabric of the stream of consciousness itself, since the flux of the temporal object precisely coincides with the stream of consciousness of which it is the object. To account for the structure of the temporal object's flux is to account for the structure of the stream of consciousness of which it is the object.

In the temporal object as melody, Husserl discovers *primary retention*.

Primary retention is a kind of memory, but it is nonetheless not the aspect of memory involving recall. Husserl sometimes calls this "re-memory," sometimes "secondary memory."

Primary retention is what the *now* of an unfolding temporal object retains in itself from all of its previous *now*s. Even though they have passed, these preceding *now*s are maintained within the temporal object's current *now*, and, in this respect, they remain present even while perpetually becoming past; they remain present as having happened and in being sustained as having happened in the current *now*—they are maintained as *both* present and absent in the currently occurring *now* and insofar as the temporal object is not completely unfolded, completely past but still *passing* (i.e., temporal).

When I hear a melody, as a temporal object it presents itself to me as it unfolds. In the course of this process each note that is presented *now* retains in itself the preceding note, which itself retains the preceding one, etc. The current note contains within it all the preceding notes; it is the "now" as the maintainer of the object's presence: the temporal object's presence is its passing maintenance. This continuity is the temporal object's *unity*. Because the sonorous *now* retains all the notes preceding it, the present note can sound melodic, can be "musical," whether it is harmonic or unharmonic: it continues to be properly a *note* and not merely a sound or a noise.

Properly understood, for Husserl these primary retentions cannot be seen as memories in the sense that one can remember, for example, a melody one heard yesterday. That would only be a matter of recall, the recall of something that happened but is no longer present; primary retention, on the contrary, is an originary association between the *now* and what

Husserl calls the "just-past," which remains present in the now. Maintaining the just-past in an ongoing present provides continuity to what is making itself present *now*, the most obvious example of which is melody in which a note can clearly only occur through an association with the notes that preceded and will follow it (those to follow being the ones that will resonate as a retention in the *current* note, which will be retained in its turn, but with which it will then share space as a protention concealed and sustained from preceding retentions). This is what has been called the "Kuleshov Effect,"[6] though it is considered by François Albera to be nothing more than a myth since Kuleshov himself never fully described it, and since the experience that catalyzes it can, as Albera emphasizes, be initially attributed to Pudovkin.[7] In any case, historically, the Kuleshov Effect consists of inserting the same image of the actor Mozzhukhin's face[8] numerous times into a series of sequences constructed around the image, in which each time the actor's face appears it does so with three other quite different images. The image of Mozzhukhin's face, though it is always the same, is nonetheless perceived by viewers as three different images, each seeming to produce a different version of the same face.

In fact, it is this cinematic *effect* that ceaselessly produces a particular consciousness, projecting onto its objects everything that has preceded them within the sequence into which they have been inserted and that only they produce. And in fact this is the very principle of cinema: to connect disparate elements together into a single temporal flux.

Husserl's principle of primary retention is the most productive conceptual basis through which to analyze this "generalized cinema." Though Franz Brentano was the first to attempt to think through the primary retention of the just-past, according to Husserl he had failed, in that Brentano claimed that primary retention, as the past originarily engendered by the present now of perception, was a product of the *imagination*, originarily associated—as the past—with this perception. In Brentano's version, it is the imagination that both provides retention with the index of the past and that simultaneously connects the present now to its retentions in an out-flowing in which the passing temporal object finally disappears. But for Husserl such a viewpoint is inadmissible in that it amounts to saying that the time of a temporal object is *imagined*, not *perceived*—and that as a consequence, temporal objects are not realities but effects of the imagination: this would mean the negation of the reality of time itself.

However, in claiming that primary retention is not a product of the imagination but the phenomenon of the *perception* of time par excellence, Husserl must not only distinguish primary from secondary retention, which would obviously be necessary, but in fact *oppose* them.[9] Opposing primary memory to secondary memory, primary retentions of perception to re-memories, is to initiate an absolute difference between perception and imagination, to propose that perception owes nothing to the imagination, and that what is perceived is in no case imagined; further, this claim must absolutely not be contaminated by the persistent fictions produced by the imagination: life is perception, and perception is not imagination.

In other words, life is not cinema. Nor philosophy.

Life-as-perception of the living present, for Husserl, *does not tell us stories*.

Selections, Criteria, and Recordings

The Kuleshov Effect in particular and cinema in general nonetheless show that as an interdependence among just-past retentions in the ongoing present of a temporal object, and as the re-memory of the past in general, this primary/secondary opposition is a phantasm.

And if it were possible to demonstrate that lived reality is always a construct of the imagination and thus perceived only on condition of being fictional, irreducibly haunted by phantasms, then we would finally be forced to conclude that perception is subordinated to—is in a transductive relationship with—the imagination; that is, there would be no perception outside imagination, and vice versa, perception then being the imagination's projection screen. The relationship between the two would be constituted of previously nonexistent terms, and this in turn would mean that life is *always* cinema and that this is why "when one loves life one goes to the cinema," as though we go to the cinema in order to find life again—to be somehow resuscitated by it.

Philosophy would first have to ask: "Where do these phantasms come from?" And then: "What is a life that is in need of being constantly resuscitated?"

I have attempted to confront these questions in exploring the nature of a third kind of memory, not primary or secondary, but tertiary: a memory resulting from all forms of recordings—a memory Husserl

designates as *consciousness of image*. Turning our attention to Freud later on,[10] we will see why these tertiary retentions are equally the support for the *protentions* constituting the expectation that animates a consciousness—built on archi-protentions: death, desire for reproduction and expenditure—whose core is the unconscious.

Primary retention, says Husserl, is grounded totally and uniquely on perception. The primary retentions constituting a temporal object are not the product of conscious selection, since if consciousness of time's unfolding were to select what it retained from that process, and if as a result it did not retain all of it, then it would no longer be a function purely and simply of perception, but already a kind of imagination, at least by default.

However, it is enough to have heard a melody twice through in order to be able to state that in these two hearings consciousness had not been listening with the same ears: that something happened between the first and second hearing. This is because each provides a new phenomenon, richer if the music is good, less rich if bad, that the melomane (the melody *maniac*) takes in heavy doses. This difference obviously results from an alteration in the phenomena of retention—i.e., from a variation in selection: consciousness does not retain everything.

From one hearing to another it is a matter of different ears, precisely because the ear involved in the second hearing has been affected by the first. The same melody, but not the same ears nor, thus, the same consciousness: consciousness has changed ears, having experienced the *event* of the melody's first hearing.

Consciousness is affected in general by phenomena presented to it, but this affect occurs in a special way with temporal objects. This is important to us in the current investigation because cinema, like melody, is a temporal object. Understanding the singular way in which temporal objects affect consciousness means beginning to understand what gives cinema its specificity, its force, and its means of transforming life leading, for example, to the global adoption of "the American way of life." An inquiry such as this presupposes an analysis of the specifics and the specificity of the recording techniques producing cinematic flux and the effects it engenders in consciousness, especially in that consciousness is *already cinematographic* in its principles of selection for primary memories, a selection that relies on criteria furnished by the play of secondary memory and associated tertiary elements, the combination forming a

montage through which a unified flux is constructed (as "stream of consciousness"), but which is identical in form to the cinematic flux of an actual film, as a temporal object and as the result of a constructed montage.

These are some of the preconditions for the association of primary, secondary, and tertiary retentions, of an associated-montage-of-retentions we will explore in this volume.

Consciousness has altered between two subsequent experiences of a melody, and this is why the same primary memories selected from the first hearing are not selected in the second, the object being the same, the phenomenon being different. But we must then ask how it is possible to say that "one consciousness can listen to the same temporal object twice." And this is in fact, and indeed, impossible without the existence of analog techniques for recording a melody phono-graphically. In other words, the fact of the consciousness's selection of primary retentions, and thus the intervention of the imagination at the heart of perception, is only made *obvious* by tertiary retention—by a phonogram, in that for the first time it makes possible the identical repetition of the same temporal object, within the context of a multiplicity of phenomena seen as so many diverse occurrences of one and the same object.

Let us examine this remarkable possibility more closely.

I hear, for the first time, a melody recorded on some mechanism, some phonographic support medium, analog or digital. Then later on I listen to the same melody again, from the same disc. Clearly in this new second hearing the sound just-past, insofar as it is now a primary retention into which other, previous primary retentions have been and are being incorporated, *in that it is past* and is no longer passing, yet in some fashion it did not happen *again* in precisely the same way as the first time. If this were not true, I would never hear anything other than what I had already heard. But the sound just-past, combining with other sounds just-past before it, and that pass each time differently from that first time, is absolutely new in its data, the phenomenon being a different phenomenon, the experience of the same piece of music giving me an *other*(ed) experience of that music despite my consciousness of the fact that it was the same music, played a second time, from which two different experiences occurred in me; at the same time, the passing of sound just-past, the primary retention constituting this unfolding in its original, unique construction—all of this "owes" something, in its very passage, to a previous passing that has disappeared, owes something to the preceding hearing: owes *that* hearing its modification.

In its passing, retention is modified and thus itself becomes past: retention-as-passage is essentially self-modification. But this modification is clearly *now* rooted in the secondary memory of the first hearing, even though on the other hand it precisely surpasses (is different from) that first hearing. In the melody's second hearing, what I hear results from the fact that I have previously heard it, yet it results from that previous hearing precisely and paradoxically in that I hear *something else* the second time: the first time, I never actually heard the melody; the second time, the already-known led me miraculously (back) to that unknown. In that second hearing, what is present is already known, but presents itself differently, such that the expected appears as unexpected.

Inscribed in my memory, the anteriority of the melody's first hearing arises from secondary memory, i.e., from the imagination and from fiction. What is strange is obviously that this already gives rise to the *not-yet*; that the already-heard gives way to the not-yet-heard, echoing a protentional expectation that has entered into a play of archi-protentions. Between the two hearings, consciousness has changed because a *clearing away* has taken place: primary retention is a selection process brought about through criteria that have been established during previous clearings away, which were themselves selections resulting from other, prior clearings. This occurs because as memorization, primary retention is also a primary memory *lapse*, a reduction of what *passes by* to a *past* that retains only what the criteria constituting the secondary retentions allow it to select: secondary retentions inhabit the process of primary retention in advance.

This is the case when I have already heard a melody and am hearing it again, but it is also the case when I have never heard it, since then I hear from the position of an expectation formed from everything that has already musically happened to me—I am responding to the Muses guarding the default-of-origin of my desire, within me. And this occurs because of a memory lapse, a *forgetting*, and because this forgetting occurs only as a function of certain criteria: my ability to construct the object of a critique. If "to memorize" did not mean already "to have forgotten," nothing could be retained, since nothing would have passed, nothing would have happened.

Imagine hypothetically that I have an infinite memory and that I can remember what happened yesterday. I thus remember every second and fraction of a second exactly identically. When I come to the end of the

day, I remember that at that moment I am remembering the entire day, which I begin to do again in remembering myself remembering anew, each second exactly and identically, etc. There is no longer any difference, because there has been no selection: time has not *passed*. Nothing has happened nor can happen to me, neither present (in which something new always presents itself to me, including boredom with the absence of the new) nor past: the present no longer passing, no longer happening; no passage of time is possible. Time has ceased to exist.

In fact, remembering yesterday, having a *past*, means reducing yesterday to less than today, diminishing yesterday, having no more than finite memories of it. This retentional finitude is the grounding condition of consciousness-as-temporal-flux. And what is true of secondary memory is true of all memory, including primary memory; thus primary retention can only be a selection, brought about according to criteria that are themselves the products of selections. However, in the case I have laid out here, i.e., understanding how we hear a melody recorded on any phonographic support mechanism, this secondary memory, indissociable (though different) from primary memory, is also indissociable from tertiary memory, "consciousness of image"—the phonogram as such.

And that is precisely what is at stake.

Phonographic Revelation

Husserl's examples of "consciousness of image," of what I call tertiary memory, are the painting or the bust. For Husserl, this "configuration through image," the object of a consciousness of image, plays absolutely no role in the constitution of a temporal object—nor, consequently, in the constitution of the flux of consciousness itself. Not only does such a memory type not appear to perception; it does not even appear to the past flow of consciousness, in contrast to secondary memory, which, though it no longer arises from perception, is inscribed in the flow of consciousness's past and appears to this living consciousness as its own past, since it was perceived.

For Husserl, the consciousness of image is not a *memory* of that consciousness; it is an artificial memory of what was not perceived nor lived by consciousness. A nineteenth-century painting is certainly a kind of memory, but one could not say, according to Husserl, that it is a memory of someone looking at it *now*. It is, rather, a memory trace of the painter, who has in some fashion exteriorized and frozen his memory, thus

allowing, a century later, another consciousness to contemplate it as an image of the past—but in no case as a memory of his own lived past. In Husserlian phenomenology, only that which arises from conscious, *lived experience*, is, strictly speaking, unquestionable and should be taken into account in any analysis of the constituting conditions of phenomena. Husserl's phenomenological attitude consists of positioning consciousness as the constituter *of* the world, not something constituted *by* it. Since tertiary memory is a reality *in the world*, it cannot be constitutive of consciousness but must necessarily be derivative of a consciousness that has no real need of it.

However, since the unique event that is the advent of the technical possibility of analogic recording of a *temporal* musical object, and the ability to repeat it technically, the link between primary and secondary retentions has become obvious: clearly, even though each time it is repeated it is the same temporal object, it produces two different musical experiences. I *know* that it is the same temporal object, because I know that the melody was recorded by a technique producing a co-incidence between the stream of what was being recorded and that of the machine doing the recording. I know that the recording mechanism's time coincided with the melodic flux. And this co-incidence of machinic flux and that of the temporal object produces, for the flow of consciousness of both the object and its recording, a conjunction of past, reality, and this effect of the real that Barthes identifies in photography and that is replicated in the realm of sound, the difference being that as Barthes points out in the case of photography there is the *pose*, whereas in the case of phonography, of recorded sound (as in cinema), there is *flux*.

Consciousness of image, in the case of the phonogram (though it could also be said of cinematic recording), is what finally roots the primary and the secondary in one another, through the technical possibility of the temporal object's repetition (and it cannot be emphasized strongly enough that before the *phono*graph, as before the cinema, such repetitions were strictly impossible). At the same time it becomes obvious that the grounding of the *second primary* is in the memory of the *first primary*. It is obvious only because of the *fact* of recording: it is the phonographic *revelation* of the structure of *all* temporal objects.

Returning to *Intervista*

The consequences of this revelation are considerable: the criteria according to which consciousness selects primary retentions, passes them by consciousness, and distills them no longer applies solely to secondary retentions of lived, conscious memory, but equally to tertiary retentions; cinema shows us this most clearly.

To explore this point further, I must return to and extend the analysis I have already begun of a scene in Federico Fellini's *Intervista*.[11]

In the film, Fellini appears in a scene with Marcello Mastroianni, with whom he pays a visit to Anita Ekberg. In the course of the evening the three of them watch the Trevi Fountain scene [of Mastroianni and Ekberg] from *La Dolce Vita*. Thus, in *Intervista* we see an actress watching herself playing a character, and the scene's extreme tension results from its undecidability: Anita is appearing in a film by Fellini, but she is playing watching herself portraying a different character thirty years earlier, and no viewer of the second film, *Intervista*, could escape being certain that as she watches the earlier film—watches her *past* life, her *past* youth—Anita cannot simply play watching herself without knowing that this is a matter of the Quintessential Performance, the most serious one of all, the first and the last engagement, the play of all plays:[12] no one looking at herself again, from thirty years later, having aged those thirty years, could not *not* feel the terrible reality of time passing through the photographic "that has been," through the "conjunction of reality and the past," the silvery co-incidence re-animated by cinema's temporal flux. *We* see an actress playing an actress watching an actress playing a "real" character in a fictional film, but we know that she is "playing" at watching herself *having been*, that what she is doing is no longer a simple portrayal, a pure performance any actor might be required to give (to play this or that character), but the absolutely tragic staging of *her own* existence, insofar as that existence is *passing by* irremediably and forever—*forever*, except for what concerns this silvery image she has left on a reel of film: an image in which she has been preserved.

Watching herself performing thirty years earlier, Anita must feel the future anterior so striking to Roland Barthes as he looks at the photograph of Lewis Payne taken several hours before Payne's hanging:

> In 1865, young Lewis Payne tried to assassinate Secretary of State W. H. Seward. Alexander Gardner photographed him in his cell, where he was waiting to be hanged. The photograph is handsome, as is the boy: that is the

> *studium*. But the *punctum* is: *he is going to die*. I read at the same time: *This will be* and *this has been*; I observe with horror an anterior future of which death is the stake. By giving me the absolute past of the pose (aorist), the photograph tells me death in the future. What *pricks* me is the discovery of this equivalence. In front of the photograph of my mother as a child, I tell myself: she is going to die: I shudder, like Winnicott's psychotic patient, *over a catastrophe which has already occurred*. Whether or not the subject is already dead, every photograph is this catastrophe. (CL, 96)

"Every photograph is this catastrophe"; every photograph declares this future anterior whose stakes are death—and the dramatic outcome of every narrative, every play, every cinemato-graphic emotion.

In Anita's case, she is not merely *saying* this: as image, she is dead *and* she is going to die. She must say to herself: "I am going to die; I am dying." This *present participle* is *precisely that of flux*—that of her past life, of the film on which she has been recorded, and of her current consciousness of this film that, in unfolding, carries her along and makes her pass by, placing her in a time that leads toward the absence of time: nonpassing, infinite memory that will no longer be special, where everything will be retained forever in its instant: "*The Instant of my Death*."[13]

But all of that is, in this scene in *Intervista*, the result of the fact that film is a temporal object in which

> the actor's body is conflated with the character's; where the film's passing is necessarily also the actor's past, the moments of life of a character are instantly moments of the actor's past. That life is merged, in its being filmed, with that of its characters. (TT2, 22)

This confusion of the actor's life with the filmed one is that of primary, secondary, and tertiary retentions coinciding in a single event: the properly cinemato-graphic event. In this filmic coincidence, which Fellini stages in an extraordinary way by including the fact that, for any viewer of *Intervista* who has already seen *La Dolce Vita*, the latter necessarily also becomes part of the viewer's past, and a reference to the earlier film is not simply a reference made to one fiction in the course of another fiction, which would merely be a citation: this first fiction, *La Dolce Vita*, cited in the second fiction, *Intervista*, is simultaneously

1. a *tertiary retention* (an artificial memory presented in a support medium, of which an extract, a piece of film, is projected into another film and recorded on another piece of film);

2. a *temporal object* that has been seen and re-seen, and that is currently being seen by the viewer of *Intervista*; and further,

3. as a temporal object, the film is a secondary memory for this viewer, a part of his or her past stream of consciousness, then re-activated;

4. ninety minutes of the viewer's past life, the running time of *La Dolce Vita*, have been lived as the extended retention of primary retentions in the *now* of an elapsed narrative entitled (in its entirety) *La Dolce Vita*, and of which a particular sequence is then re-lived (i.e., the section included in *Intervista*); and

5. included in *Intervista*'s cinematic flux; that is, in Anita's passing stream of consciousness as well.

Additionally, *La Dolce Vita* is no longer simply a fiction for someone viewing *Intervista*: it has become its past, such that watching Anita watching herself perform the scene in *La Dolce Vita*, the viewer sees himself or herself passing by. This is true even if *La Dolce Vita* is not part of the viewer's past in the same way it is in Anita's, Mastroianni's, and Fellini's past; all three have actually lived what the spectator sees "in the cinema." *Intervista*, as a temporal object, is temporal in making the temporal object *La Dolce Vita*, lived by the characters in *Intervista* just as by its current viewers—each in a particular role—re-appear.

Consequently, the viewer (of *Intervista*) faced with the impossibility of distinguishing between reality and fiction, between perception and imagination, while (each in his or her particular role) *all* must also say to themselves, "*We* are passing by there."

We will see in the next chapter that this impossibility of distinguishing, this undecidability, also haunts Kant in the *Critique of Pure Reason*.

In Chapter 3 we will find that this indistinction is the fundamental condition for constituting a *We*—and that it nonetheless *must* be distinguished.

America, America

It would be a simple matter to show that this scenario could only result in the most general of structures, structures of haunting and phantasmatic spectrality already predicted by Socrates to the Athenians[14] regarding the immortality of the soul.[15]

"The immortality of the soul" is the screen—confusing perception and imagination, *doxa* and *epistēmē*, sensible and intelligible, which must

always be distinguished without ever being placed in opposition—onto which that structure will then be projected and dissimulated: as projection screen "the immortality of the soul" is the opening of a great "film," *metaphysics*, introducing the extravagant Socrates, played by Plato.

Fellini stages this spectacle's machinery most clearly at *Intervista*'s conclusion, showing how metaphysics "functions," and beyond that, the "consciousness" that is its product. This structure is *revealed* in its greatest force, the force of direct evidence, in cinema, and because cinema is a temporal object.

In a similar frame, we might *remember* the characters in Resnais's *My American Uncle*, in which memory is a dense fabric of cinematographic citations. As he set out on the project, Resnais had imagined making a film consisting entirely of citations but had to abandon the idea for economic reasons:

> The idea of only using extracts from existing films existed from the very first scenario. At one point we even thought of making a film exclusively based on scenes drawn from the millions of films that make up the history of cinema. The novel, the cinema, and the theater contain every possible behavior. With enough time and patience, perhaps it might happen. But financially it would be a mad undertaking.[16]

The great French actor Jean Gabin appears in the memory of René Ragueneau, being played by Gérard Depardieu. Gabin was a cinematic presence, "in the limelight" as would have been said before World War II. In that cinematic era there were "stars." Stars: inaccessible, untouchable, *impassive*, yet visible, perceptible beings; beings balanced between, on the one hand, the intelligible, where they seemed to be fabricated in the spirit of a Greek ideality (and in the pre-philosophic spirit of divinities), and on the other hand, the corruptible, sublunary world of the viewer's eye beholding them, an eye so fragile, so obviously predisposed to vanishing, so flawed: an eye merely passing by.

By the very fact of this juxtaposition of the cinematographic temporal object as between the real life of actors and that of their fictional characters, the Hollywood star could only *become* a star through a play of hauntings in which reality and fiction, perception and imagination become confused together—and along with them primary, secondary, and tertiary memory.

The great case in point that we still remember is Vivien Leigh's

Blanche Dubois in *A Streetcar Named Desire*;[17] Blanche is a faded Southern belle who has lost the family house, a "house with colonnades," one of those residences that the Scarlett O'Hara of *Gone with the Wind*[18] would not abandon at any price. Watching Vivien Leigh playing Blanche, how could one avoid saying to oneself that she, and director Elia Kazan, and all the viewers of *Streetcar*, are haunted by Scarlett: by her extraordinary beauty, her brilliant and unbearable coolness as a mad young Southern woman—how could one avoid it? Who has not seen, loved, and detested Scarlett? *Gone with the Wind* was made a dozen years before *A Streetcar Named Desire* and is, of course, among the greatest successes in cinema history; it is a film that has been seen—that has *passed by*, unfolded, been unrolled—literally everywhere, and with it, Scarlett O'Hara, as played by Vivien Leigh, loved and hated by the entire world. Kazan could neither ignore nor neglect this when he cast his later film. How not to shudder before such a psychotic, at the catastrophe that has unfolded when we see Blanche taken away forever from her "sanctuary" with Stella and Stanley? How not to feel insane ourselves, carried along by this exemplar of the great, mad American destiny—that never fails at the same time to sell us, through making us laugh and cry in the face of our own fate, the American Way of Life? *America, America!*

Repetition and the Unconscious

All of this is possible only because the structure of consciousness is thoroughly cinematographic, assuming that we can call "cinematographic" what unfolds through a montage of temporal objects—objects constituted through their movement.

If Husserl was unable to perceive the question posed by phonographic and cinematographic recordings and their identical repetition of the same temporal object, each time producing two different phenomena, he does nonetheless analyze the way in which secondary memory allows for the willful repetition, through the imagination, of a previously perceived temporal object. And Husserl further notes that in such a case (for example, I remember a melody I heard yesterday), consciousness possesses a freedom unavailable to perception since consciousness is within the imagination. For example, I can return to the memory of a concert I heard yesterday, speeding it up or slowing it down: "we can 'in all freedom' accommodate larger or smaller fragments of the process

re-presented with its modes of flow, and thus experience it more quickly or more slowly."[19] Here Husserl addresses a remarkable phenomenon, recollection, in which "my past life is thus given to me, precisely and simply given as the 're-given' of life" (CIT, 60).

This means that in such a case secondary memory would be the repetition of the primary temporal object as it occurs, pure and simple. But in fact such recollection is impossible, because a temporal object consists not simply of retentions but also of *protentions*—anticipations—the second time I hear it, thanks to tertiary retention, or even if I reproduce it in my imagination, thanks to secondary memory. In both cases the anticipations that were blank during the first hearing are no longer blank: secondary memory can no more erase them than it can erase tertiary memory: it has already taken place, it "has been." Certainly, in the one case it is repeated objectively, as in analogic, photographic, or phonographic tertiary retention. But the conscious phenomenon (and the phenomenon is always that of consciousness) is different each time. In the other case, the repetition is subjective (i.e., in secondary memory): there is only the phenomenon of repetition but without objective repetition, and thus it is necessarily already different *as* phenomenon; were this not the case, it would contradict what Husserl says initially regarding the difference between imagination and perception, which for him is a principle, confirmed by the fact that in the imagination of secondary memory, anticipations or protentions have already occurred such that the imagining consciousness can no longer efface them. As Paul Ricoeur emphasizes,

> If the way in which memory presents the past differs fundamentally from the presence of the past in retention, how could a representation [a temporal object passing through secondary memory] be true to its object?[20]

"Recollection" is thus impossible. I have already pointed out why everything is inscribed in advance within the retentional finitude of consciousness: the fact that memory is originally selection and forgetting. But that in turn means that in all remembering of a past temporal object there is a necessary process of *dérushage*, of montage, a play of special effects, of slowing down, accelerating, etc.—and even freezing on an image: this is the time of reflection that Husserl analyzes precisely as such, a moment of the analysis of memory, of recollection's decomposition.

But given that we have also seen that this selection first of all affects primary retention itself, we would then have to say that consciousness is

always in some fashion a montage of overlapping primary, secondary, and tertiary memories. Thus, we must mark as tertiary retentions all forms of "objective" memory: cinematogram, photogram, phonogram, writing, paintings, sculptures—but also monuments and objects in general, since they bear witness, for me, say, of a past that I enforcedly did not myself live.

Memory in all its forms would then always be a sort of rushing montage of frozen images, from the simplest juxtaposition to the greatest art of the scenarist, according to the quality of the consciousness and the nature of the object presented to it, and according to the criteria—the secondary memories, i.e., the experiences—it evokes from the object.

In one scene in *Mon oncle d'Amérique*, René Ragueneau "projects" a certain scene from a Jean Gabin film onto what is at that moment serving as the background and/or the projection screen. This is a projection that is clearly not a stranger to what Freud discusses in *Metapsychology*.

"Consciousness" would then be this post-production center, this control room assembling the montage, the staging, the *realization*, and the direction, of the flow of primary, secondary, and tertiary retentions, of which the *unconscious*, full of protentional possibilities (including the speculative), would be the producer. "Post-production" occurs when the "rushes" and the montage are out of sync: this is the phenomenon of the dream. Direct control occurs when consciousness "builds" such that it is "captured": this is the waking state. Cinema is of the order of the dream. The waking state is a sort of tele-vision. It is certainly always possible to think while awake; this would be tele-cinema.

The Protentions of *Four O'Clock*

Memory is originarily forgotten because it is necessarily a reduction of what *has* passed to the *fact* that it has passed, that it is in the past, and that it is thus *less* than the present. The past is diminished in the present of its being remembered; if not, it would not have passed, it would not be passing. This is the normal structure of passage, of passing, in general, of time itself, which is why cinema and, more generally, all narratives can and must abridge and condense the time of what is being re-cited within the time of the story. In two hours I can tell a story that takes place over two millennia. The transmission of all knowledge (all "education"), in the family or in a school, rests on the originary law of condensation that

occurs between the past (condensed) and the present (condensing). This condensation—what Bergson calls "contraction"—is a montage, a selection, an anthology of previous scenes, lived by me either through direct perceptions or through various images projected onto the support screen of the present. Cinema is a specific case of this, and one whose specificity results from the fact that it is a temporal object whose speed can be controlled, across a variety of production, post-production, projection, and reception machines, through what is now called a time-code.

Condensation-as-montage (Freud analyzes it in *On the Interpretation of Dreams*) is employed masterfully in Hitchcock's *Four O'Clock*,[21] as the most meticulous interactions between retentions and protentions, applied in direct connection with clock-time, providing a perfect opportunity to analyze in great detail the link between time-code and clock-time, as a demonstration of the condensation effect.

In *Four O'Clock*, a jealous husband, who is a watchmaker, has laid a trap for his wife, suspecting her of infidelity. He plans to leave home at four o'clock in the afternoon, at which point his wife's lover will sneak into the house. The watchmaker has devised a time bomb to explode when they are together. But just as he is preparing to leave, while activating the time bomb (the clock's alarm is the detonator), he surprises some robbers in the house. After a struggle they overpower him and tie him up in the basement, right next to the clock and the explosives—about which he has been unable to tell them. In the course of the final thirty-two minutes and twenty-three seconds of the film's running time—which last a total of forty-eight minutes and twenty-three seconds—the cinema spectator participates in the growing anticipation of, and the growing terror provoked by, the explosion—provoked *in the spectator—via* the watchmaker. In this final section, the longest in the film, it is quite simple to measure Hitchcock's condensation effect since he shows the clock sixteen times.

The film is in three parts: the statistics of Hitchcock's condensation show this mounting terror: the film's first segment, introducing the watchmaker and his plan, takes place over approximately one full day; in the film it lasts nine minutes and eight seconds (9' 08").

The second part, as his growing resolve reaches the point at which he decides to go through with his plan, lasts 6' 52"; it covers two days in his life.

The third and last section, the countdown to the bomb's explosion,

takes 32' 23" to show two hours of his life. But even during these 32' 23", the relation between the character's lived time and the film's elapsed time progressively compresses: it contracts as a function of the events controlling our anticipation. (Hitchcock articulates retentions and protentions in order to provoke suspense via a montage that lays out the nonlinear progression of the two time frames.)

The final minute before the anticipated explosion lasts *seventy-two seconds*: Hitchcock elongates and dilates time.

[Table 1 here]

In the end—no explosion. Yet what is astonishing is that when I watch the film again, I tremble again: I take on the character's anticipation, putting myself "in his skin." The protentional effect is not eliminated by the fact that the anticipation has already been dissipated—I know what is (not) going to happen. I am caught up in the flow of the cinematic action such that even if I notice something different *each time* I see it, I am compelled again, each time, to adopt the character's time, through abbreviation, condensation, contraction, of which the *de-contraction* of the "real time" final minute (60" expanded to 72") cancels the effect of all the preceding contracted, condensed, abridged minutes.

And yet, the emergence of all protentions occurs through the irreversible nature of their unfolding. This irreversibility is precisely the protention containing all protentions, the archi-protention: awareness of time as such, as it is woven through the "primitive scenes" that are the occult archival basis of all of Hitchcock's dramas, worked out as no one else has ever done.[22]

The Eclipse

In *The Eclipse* (1962), Michelangelo Antonioni shows the announcement, on the trading floor of the Stock Market, of a courier's death, then films a "minute of silence"—that actually lasts nearly a full minute (56 seconds, according to the timer on the VCR). The unfolding of this "real time" does not mean that the *cinematic* time is any more true or "realistic" when it coincides with "life-time." In fact, in this case it means a minute of death-time. And further, in that long, immobilized silence, on the contrary it becomes even clearer for the living consciousness of the spectator that time in every guise is always the time of contraction, condensation, abbreviation—the time of montage: it is always *cinematic*

time, and there is a conjunction between the cinematic flux and that of the viewer's consciousness. The viewer can adopt the characters' time, grafted onto the viewer's own time as selection and contradiction, and as a montage of the viewer's own memories.

The minute-long hiatus that lasts nearly a minute is inserted into condensed cinematic time like an eclipse: it is a suspension in the face of death, a suspension of death, of death as complete de-contraction. Cinema—that is, movement; that is, life—is respected, made concessions to: the trading floor's frantic motion that had been nothing but rushing, shouting, buying, selling—all that is interrupted. The precise recording of the minute-long pause suspends life, as a *selection*.

"A minute here costs billions," says Piero (Alain Delon) in a low voice to Vittoria (Monica Vitti). And then trading roars into action again.

How much does a minute of film cost? Does "a minute" really cost "billions"? The coincidence of a minute with a minute indicates that *without* this coincidence there is cinema, and that cinema, which brings many such coincidences into juxtaposition, has no need of them—and that *everything* has a price: the price of passing time, for example, and of the irreducibility and irreversibility of its selection. All cinema is "Hollywoodian"; every film waits for its "selection" and thus its price; especially *this* film, with its minute of silence lasting approximately a minute, an example of European neorealism in the age of the "New Wave," making a pure "time-image" visible.

The Time of the Other

My time is always that of others. Cinema reveals this cinemato-graphically. Stream of consciousness *is* the contraction of time, whose initiation process occurs in a cinema in which my time, within the film's time, becomes the time of an other and an other time.

My time is constructed by being laminated onto the time it takes from others—including giving itself to those others in interweaving flows, like sap.

This is why solitude is so difficult to withstand: in solitude, where the other is absent, there is no more time, "nothing is going on," "nothing happening," and I must face boredom, since I am encountering only the empty shell of a "me" that is no longer the time of the other.

If on some bleak Sunday afternoon cinematographic or tele-visual

distraction can bring me a synthetic other, it is because cinematic flux makes my selections for me. It changes me and quenches my thirst, relaxes me, renews me like a tonic, *and* gives me access to the other who is (always) right next to me and who is only waiting to come to life (i.e., to cinema, to the image of the other) to be set in motion as a projection on a screen.

It is only possible to find the other in oneself. It is only possible to find in oneself—through the detour of an other, real or fictional—the other *of* oneself, the other as self, a new self following the story of (a) myself whose others consist of all the occasions and the possible graftings of a secondary story. I anticipate the other whom I expect will come into my film, my cinematic medium, by appearing on the screen—as co-producer, screenwriter, character, atmosphere, accessories, etc. I have more recently referred to this phenomenon[23] as the pre-textuality of the *I*, or the *I* that is already a *We*.

As Bergson says, the conscious present is the contraction of the entire past: "the present" for consciousness *is* memory, and because time, which is primary retention, consists of selection via secondary retention that is the cinema in/of accelerated life, I see, I remember everything that has been repressed/archived: images, sounds, smells, touches, contacts, caresses; I remember everything I forget *and* remember, everything I have abridged *and* condensed. This results in situations with characters: the very people onto whom I project a new scene and its visual images.

The other is not simply "others": I construct the documentary in specific—I can see the garden, the street, the mountain, the sea, the highway, the cars in front of me on the highway, those passing by, the crowds, the entire world of observation in which nothing happens to me but what happens to me holistically.

I can also see "myself" as an other; I can film "myself," project "myself," graft "myself" onto myself, see "myself" as a tutor, as a support, a screen: writing, for example. That is, to "objectify," "exteriorize," express" myself: to "tertiarize" myself.

And it is a montage, already cinema.

Television

In the second half of the twentieth century, cinematic time overflowed into television. In 1954, 1% of French households had a television set. In

1960, 13.1%. In 1970, 70.4%. In 1980, 90.1%. In 1990, 94.5%. In the world as a whole, it is estimated that today there are over a billion televisions: virtually the entire population of the world has been "converted."

The twentieth century, born of cinema, in the end manifested the astonishing domination of consciousness by audiovisual temporal objects broadcast over hundreds of channels and countless programs constructing a new social time, a new temporal orientation, in the area economists have named "the programming industry," reminding us of what in 1947 Horkheimer and Adorno called the *Kulturindustrie*.

Just as the cinema inherits photographic techniques and aligns itself with photography, televisual techniques add to cinema certain specific characteristics that produce an identifiable televisual effect.

We have seen that the objectivity of the camera lens, the "that-has-been" in which the viewer of the photograph believes instantly—believes that what is "in" the photograph "has been" because the viewer knows (intuitively) that the photons deposited on photosensitive paper were reflected from a real body that they apparently reproduce through the optico-chemical reconstitution of the associations and contrasts of the photonic emissions from the photographed body, as an analogic technique. Cinema adds the dimension of time, retinal persistence, and the succession of photograms, producing a *temporal* object composed of a pre-, a during-, and an after-movement, all moving within the viewer's consciousness, which itself moves as its visual object (cinematic flux) moves. But the chief characteristic of temporal objects is that their flux coincides "point-by-point"[24] with the stream of consciousness of which it is the object—which means that consciousness of a temporal object adopts the object's time: conscious-time *is* that of the object, in a process of adoption through which the familiar phenomenon of cinematic identification becomes possible.[25]

Television adds two new photographic and cinematic effects:

1. As a technique of tele-diffusion television enables a mass public simultaneously to watch the same temporal object from any location; further, it makes the construction of temporal mega-objects, the programming grid through which various audiovisual temporal objects are linked together to form a network (the "television network");

2. As a technique for "live" transmission, it enables this public collectively and universally to live *through* any event at the moment it is occurring, and thus the diffusion of a live temporal object. The World Cup

Final, held in France on July 12, 1998, and broadcast live, is an exemplary case—it is the "immediate reception" of the event that makes it an event.

These two televisual effects simultaneously transform the nature of the event itself and the most intimate life of the population: the programming industries have initiated a synchronization that suddenly contains all diachronies that now constitute *culture* and thus also *consciousnesses*. This is the process at the core of Horkheimer and Adorno's "cultural industries."

§ 2 Cinematic Consciousness

Spiritual Catastrophe

During television's infancy, Horkheimer and Adorno had already taken notice, in the Hollywood cinema that was also available through radio and in magazines, of the imminent arrival of the spiritual catastrophe that would result from such a system of alienation in which "automobiles, bombs, and films guarantee the system's cohesion,"[1] an aesthetic barbarity

> subordinating in the same way all sectors of intellectual production, to this single end: to control everyone's senses from the time they leave the factory, through the evening, to the moment they arrive at the time clock the following morning. (AH, 130)

How would they then describe the life of the contemporary worker—or indeed of someone not working—who in France spends nearly four hours a day in front of the television? And what would they think of what is now being created through digital networks? No doubt, one word would surely come up, one that profoundly disrupts all mass media—and television in particular—by integrating them into the new kind of system Adorno and Horkheimer anticipate: "alienation," as a tool of *global* alienation through which as television becomes tele-*action* the advent of tele-society will bring about the "market society" envisioned by European Social Democrats, with no impediments.

From Image-Object to Transcendental Imagination

Several years ago, I addressed the irreducible materiality of the image:

> *The image in general* does not exist. What is called a mental image and what I will here call the image-object, always inscribed in a history, and even a *technical* history, are two sides of one and the same phenomenon in which it is no longer possible to separate the signified and the signifier that in the past would have defined the two faces of the linguistic sign.
>
> The critique Jacques Derrida has proposed, regarding the *opposition* of these two concepts, in the sense that the signifier would be a contingent variation of an ideal invariant, which would be the signified, is definitive. Just as there is no "transcendental signified," there is no general mental image or "transcendental imagery" preceding the image-object. The remaining matter of the transcendental *imagination*, I will not address here. (ET, 147)

But it is precisely this question of the transcendental imagination that must now be examined, if the question of the image-object is to be readdressed from the point of view of retentional finitude:

> If there is obviously a *difference* between mental image and image-object that is not an *opposition*, it would mean that they are always connected with each other, neither being the other's opposite.
>
> The most immediately imposing difference is that the objective has duration while the mental is ephemeral. Likewise, a memory-object has duration . . . , while a "mental" memory is ineluctably erased—and quickly disappears: living memory, memory that is lived through is essentially what lets us down, always ending by escaping us. Death is nothing other than a total effacement of memory. (ET, 147)

I have promulgated this retentional finitude as the grounding principle of the entire philosophical analysis I develop in *Technics and Time, 1* and *2*—the concepts of epiphylogenesis and tertiary retention. If Heidegger, in critiquing the Husserlian concept of time (even while being inspired by it), claims that "the being we are ourselves" is always an inheritor, always preceded by an artificial already-there, by a past that has not been lived and that is thus not one's own but that must nonetheless *become* one's past, in some way be adopted, I have tried to show that the consequence—one that *Being and Time* does not take up, and the entire problem of Heideggerian politics results from this ambiguity—is that beyond the primary and secondary retentions Husserl identifies and analyzes,

there must be tertiary retentions, technical traces constructing this artificial past that is not "one's own" but that must become one's own, must be "inherited" as one's own history, becoming accessible to *Dasein*. In my analysis, this would be one's historicality (*Geschichtlichkeit*).

What I call tertiary retention is Heidegger's *Weltgeschichtlichkeit* (world-historicality).[2] Heidegger rejects its being inscribed in the originary sphere of "authentic" temporality, but we will see that this is the very question lying at the heart of the Kantian mysteries swirling around the transcendental imagination.

Hollywood, Capital of Industrial Schematism

The very possibility of "culture," and thus of "spirit," relies on technics. But adopting this viewpoint is fraught with consequences for any attempt at a critique of the concept "cultural industry" as it is laid out by Adorno and Horkheimer, whose characterization of this industry refers to what Kant calls the "schematism of the pure concepts of understanding."[3] Kantianism, we must remember, identifies two foundations without which knowledge for the human subject is impossible: sensibility and understanding. For Kant, a schematization operating through the imagination permits their unification; that is, the unity of consciousness itself. And yet, because the culture industries are industries of the imaginary, Horkheimer and Adorno are able to describe the imagination's industrialization as an industrial exteriorization of the very power to schematize, and thus as an alienating reification of knowing consciousness:

> Industry has deprived the individual of his function. The primary service that industry brings to the client is to schematize everything for him. According to Kant, a secret mechanism is at work in the mind, already equipped with immediate data that are adapted to the system of Pure Reason. Today, this secret has been deciphered. (AH, 133)

The unifying imagination is in a sense short-circuited, eliminated by the industrialization of a culture that literally stupefies [*a-brutissant*], radically alienating what should be the freely reasoning subject whom it subjugates—by de-subjectifying. Consequently, the general commodification of cultural goods also necessarily amounts to the releasing of the most irrational aspects of society—the least "cultural" and the most senseless: the most *barbaric*.

In short, Horkheimer and Adorno accuse cinema of paralyzing the spectator's imagination and, more generally, the spectator's discernment, to the extent that he or she can no longer distinguish between perception and imagination, reality and fiction—a charge that could certainly be applied today to virtual reality and electronic games:

> The more [the culture industry] succeeds, through its technologies, in accurately representing real objects, the easier it is to produce the belief that the exterior world is simply the extension of the one revealed in the film. The introduction of sound has completed the process of putting industrial reproduction entirely in the service of this goal. It is no longer possible to distinguish real life from film. (AH, 133)

This is, of course, an industrial schematization, and it has a capital: Hollywood.

Husserl's, Horkheimer's, and Adorno's Shared Obsession, and the Political Economy of Consciousness

If all of this is true, it is still necessary to explain why and how consciousness can at this point be intimately penetrated and controlled by cinematic sequences, and what "true consciousness" and "real life" are revealed, if indeed they are, through cinema.

In the previous chapter we saw that

1. a film is a temporal object that "coincides" with consciousness as a retentional process inherently affected by tertiary retentions;

2. analyzing the temporal object's singularity, Husserl discovers that in it, one must not confuse primary retention, as constitutive of all temporal objects and that occurs in the *present* of perception, with secondary retention, which I can re-activate in my imagination through the play of memory, and which constitutes the *past* of my consciousness; in other words, Husserl confirms, forty years before Horkheimer and Adorno, that perception must not be confused with imagination, and that contrary to what will occur through the development of the culture industries, "real life" must remain distinct from film;

3. if Husserl, Horkheimer, and Adorno have good reason to condemn the dangers of a confusion of perception and imagination, a confusion that can only produce mental disorder—in this case, of industrial dimensions—we now know that this distinction must not be seen as an

opposition, nor this denunciation as a denial: we have seen that with the invention of the phonograph, which for the first time mechanically produces identical repetitions of a single temporal object that, with each repetition, produces two different retentive phenomena. Such repetition is possible only through technical recording, only through this technologico-industrial reproducibility that is the objective and infrastructural foundation of Horkheimer and Adorno's analysis of culture industries, echoing Walter Benjamin but, despite Benjamin, *still* failing to think them through even as thoroughly as did Husserl, despite their focus (albeit differently from Husserl) on the same object: the *Kulturindustrie*.

Horkheimer and Adorno's failure consists of not having understood that *if* it is true that the composition of primary and secondary retentions, which make up the actual phenomena of the temporal object and that explain that the same object repeated can produce two different phenomena, and *if* it is true that this composition is overdetermined in its technical and *epokhal*[14] characteristics by tertiary retentions, *then* the very heart of the issue of the culture industries is that they comprise an industrial, and thus systematic, implementation of new, technological tertiary retentions and through them, criteria of selection of a new kind—which are, as it happens, totally subjected to the logic of the marketplace, and thus to shareholders.

This has brought about a new, genuinely revolutionary, era, of the political economy of consciousness.

Tertiary retention is in the most general sense the prosthesis of consciousness without which there could be no mind, no recall, no memory of a past that one has not personally lived, no culture. The phonogram is one such prosthesis, but of a very singular type—singular in that it makes it obvious that, as the recording of a track on a material object, in this case an analog recording, tertiary memory inherently *overdetermines* the articulation of primary and secondary retentions. This is precisely what we saw in analyzing *Intervista*, but we would see it just as clearly in, for example, Woody Allen's *Purple Rose of Cairo* or Wayne Wang's *Smoke*.

Husserl wants to rule out the possibility that perception *is* cinema, not "only in cinema," and that the perceived is never only cinema's projection screen. He thus excludes tertiary retention (most notably the phonogram) from his analyses. One must ask why Horkheimer and Adorno say the same thing forty years after Husserl, and ten years after Benjamin writes his famous text, "The Work of Art in the Age of Mechanical

Reproducibility," whose immense importance completely escapes them.[5] Why? Because they appeal to the *Critique of Pure Reason* to account for the role of tertiary retention (i.e., technics in general, as an epiphylogenetic system) in the constructing of the stream of consciousness that *is* the Kantian subject. This has radical implications. The failure of these two German émigrés to the United States who prepared in 1947 to return to their ruined country is thus above all the indicator of a mystery in Kantian thought that remains to be explored—the mystery of schematism, exploration of which could well alter the status of criteria in the *Critique of Pure Reason*, and the question of criteria is the critical question par excellence.

A critique of the *Critique of Pure Reason*, a "new critique," as an inquiry into the question of the cinema of consciousness and therefore also of technics as the horizon of all tertiary retention and the initial condition of industrial technology, would require working through the elaboration of a political economy of consciousness that I have elsewhere called an "ecology of mind" (elsewhere I have explained the quotation marks that I have retained here).[6]

This volume's goal is to lay out the fundamentals of such a program.

The experience of the identical repetition of a temporal object was only possible, for the first time in human history, after Cros[7] and Edison: with the invention of the analog phonograph they profoundly transformed the play of memory, imagination, and consciousness. This transformation continued with cinema, then television and the *Kulturindustrie* in general—simultaneously exteriorizing and reifying the work of the previously "transcendental" imagination.

How was that possible?

"Triple Synthesis" in the *Critique of Pure Reason*

Horkheimer and Adorno refer to Kant's schematism as if the concept were self-evident and contained nothing problematic, no critical question.

The concept of schematism is laid out in the first chapter of book II of "The Transcendental Analytic" ("The Analytic of Principles"), thus immediately following the concluding chapter of book I, "The Analytic of Concepts" (CPR, 176–256). Its concluding chapter is entitled "Transcendental Deduction of the Pure Concepts of Understanding"; this

transcendental deduction operates out of the concept of what the *Critique of Pure Reason* calls a "triple synthesis."

But it is well known that this Deduction, which precedes and establishes the conditions for the concept of schematism (book II, chapter I, "The Schematism of the Pure Concepts of Understanding"), exists in two versions that are significantly contradictory and have been the objects of numerous commentaries in the post-*Critique* tradition. These two versions, both of which Kant affirms despite their seminal contradictions (see the section entitled "Kant's Two Versions of Consciousness 'Before a Public That Reads'"), both focus on the idea of a cinematic consciousness that is constitutive of all conscious activity, of which the three syntheses would be the precise operations. These three syntheses that Kant distinguishes in the first version of the "Transcendental Deduction" (CPR, 131), apprehension, reproduction, and recognition, are in effect narrowly interdependent on primary, secondary, and tertiary retentions. But it is only possible for culture industries to schematize everything for their customers to the extent to which tertiary retentions play a primordial role in the constitution of consciousness—and Kant clearly does not recognize this. Moreover, Kant addresses the differences between primary and secondary retentions, though without doing it or seeing it. The result is great confusion between the two contradictory versions of the Transcendental Deduction, both of which Kant nonetheless posits as legitimate.

In other words,

1. moving from Kant's first edition of 1781 (A) to the edition of 1787 (B), we see a failure to articulate the three syntheses of the imagination defined in A, then repeated in B as part of the concept of the transcendental unity of apperception (the imagination thus relegated to secondary importance and the understanding restored to its absolute authority).

2. what Kant does not manage to think, nor thus obviously to explain clearly in A (any more than in B—though B "resolves" the problem by regressing to A in order to eliminate the contradiction), is the difference between primary and secondary retentions through which Husserl will later think more thoroughly, but that Kant perpetually confuses as syntheses of apprehension and reproduction.

3. if there *is* an "industrial schematism," it is because the schematics are originarily, in their very structure, industrializable: they are functions of tertiary retention; that is, of technics, technology, and, today, industry. And finally, failure to properly distinguish the two primary syntheses

is also a failure even to recognize the indispensable "substratum" of the third—which the *Critique of Pure Reason* in its fashion, however, as we will see (see the section entitled "Apperception's Crutches"), still asserts as necessary.

Kant's Confusion

The "triple synthesis" is Kant's working out of what he calls "the spontaneity of knowledge" (CPR, 147):

> Knowledge is a whole in which representations stand compared and connected. . . . But to such synopsis a synthesis must always correspond; receptivity can make knowledge possible only when combined with spontaneity. Now this spontaneity is the ground of a threefold synthesis which must necessarily be found in all knowledge; namely, the *apprehension* of representations as modifications of the mind in intuition, their *reproduction* in imagination, and their *recognition* in a concept. These point to three subjective sources of knowledge which make possible the understanding itself—and consequently all experience as its empirical product. (CPR, 130–31).

What is at issue in this triple synthesis, certainly in the first, "apprehension," is the question of time: if intuition's various aspects must be ordered, it is because all of our representations "are produced through inner causes" (CPR, 131), and "all our knowledge is thus finally subject to time, the formal condition of inner sense. In it they must all be ordered, connected, and brought into relation." This is why "the mind distinguishes time in the sequence of one impression upon another." This distinguishing of temporal sequencing is the same intuition as all phenomena as such, which is what allows for the synthesis of apprehension.

Kant thus specifies the second synthesis, "reproduction":

> Representations which have often followed or accompanied one another finally become associated, and so are set in a relation whereby, even in the absence of the object, one of these representations can, in accordance with a fixed rule, bring about a transition of the mind to the other. (CPR, 132)

Here Kant is describing the phenomenon of secondary retention as Husserl will analyze it. However, the problem appears at the end of the same paragraph: Kant confuses this capacity for reproduction with that of

primary retention. As a consequence, he is obliged to claim that the synthesis of reproduction is retention *within apprehension itself*:

> If I were always to drop out of thought the preceding representations (the first parts of the line, the antecedent parts of the time period, or the units in the order represented), and did not reproduce them while advancing to those that follow, a complete representation would never be obtained: none of the above-mentioned thoughts, not even the purest and most elementary representations of time and space, could arise. (CPR, 133)

In other words, Kant commits the same error Husserl will accuse Brentano of reproducing. He is clearly referring to *primary* retentions, even while he claims to be describing the synthesis of reproduction as making apprehension possible, and therefore must conclude that "the synthesis of apprehension is thus inseparably bound up with the synthesis of reproduction." He is not claiming that secondary retentions, as criteria of selection, always accompany the process of primary retention, but rather that apprehension *is* retention—that is, reproduction—from the very outset, thus clearly referring to what Husserl calls "remembering as secondary retention."

Kant is not saying what I have deduced in my reading of Husserl, though he *almost* says it—namely, that primary and secondary retention are always combined. Kant only says that he has identified what gives primary retention its singularity. But he does not specifically distinguish it from secondary retention, which is what the *Critique* claims to do. Kant believed that he was describing the synthesis of reproduction with regard to apprehension as a phenomenon of a primary retention that must precisely *not* be confused with the secondary retention constituting the essence of the synthesis of reproduction.

And yet from another perspective Kant in some way (by default) introduces the question of the relationship between primary and secondary retention that Husserl will exclude; Kant has already opened a space for the question of the role of the imagination in perception.

Kant's confusion of the two forms of retention is also a confusion of two syntheses and will thus obviously weigh on any definition of the third synthesis. It is doubtless this confusion, in 1781, that makes his thesis so obscure and requires him to write the new 1787 version of the "Transcendental Deduction." And what would the synthesis of apprehension itself, as the "understanding of the successive experience

[*déroulement*] of diversity," consist of if not precisely the retention of the experience by and in what is happening at present? Kant can only differentiate it from secondary retention (from the reproduction "in the object's absence" defining the synthesis of reproduction) if he sees the first synthesis as the conserving of the just-past in the always-present and as protention of the "still-to-come."

The Synthesis of Recognition as Unification of the Reproducible Flux of Consciousness

So we come to "recognition," Kant's third synthesis: "our modes of knowledge . . . must necessarily agree with one another, that is, must possess that unity which constitutes the concept of an object" (CPR, 134–35). The synthesis of recognition assures the coherence of consciousness with itself, given that it is a flux, and a flux whose unity must be guaranteed: it *cannot* be self-contradictory. This unification of flux, as synthesis of recognition, overdetermines the unification of the syntheses of apprehension and reproduction through which an object presents itself to a consciousness that has itself been unified by the simple fact of the recognitive unification of the stream of consciousness:

> It is clear that the unity which the object makes necessary can be nothing else than the formal unity of consciousness in the synthesis of the manifold of representations. It is only when we have thus produced synthetic unity in the manifold of intuition that we are in a position to say that we know the object. (CPR, 135)

Consciousness's unity with itself, through its objects, is the projection of apperception that Kant calls "transcendental" in the sense that it attests to an a priori necessity expressing a rule (a concept):

> But this unity is impossible if the intuition cannot be generated in accordance with a rule by means of such a function of synthesis as makes the reproduction of the manifold *a priori* necessary, and renders possible a concept in which it is unified. . . . This *unity of rule* determines all the manifold, and limits it to conditions which make unity of apperception possible. . . . But it can be a rule for intuitions only insofar as it represents in any given appearances the necessary reproduction of their manifold, and thereby the synthetic unity in our consciousness of them. (CPR, 135)

In short, the transcendental unity of consciousness is also that of objects, and thus of the world in general, what Kant calls "transcendental affinity." Transcendental affinity unifies the manifold of what is reproduced in the empirical realm as its essence and its necessity—but insofar as it pro-duces them. And out of this re-pro-duction of the diversified past, Kant abstracts a unity that is still to come; re-pro-duction is thus at a more fundamental level pro-duction, since the concept implements the a priori law of the temporal flux in which the categories are constituted. Thus this "recognitive unification," as the flux of consciousness itself, is a preparation—out of the reproducible past—for the unitary future of the flux and its objects as constituted.

But why affirm the necessity of what I have called tertiary retention *here*? Because re-cognition is a hyper-reproducibility, a law of re-production that phenomenally manifests not only a pro-duction but in some sense a re-pro-duction; that is, a production (recognition) presupposing the materiality of a reproduction (from the *synthesis* of reproduction), which then calls for the synthetic apprehension of the manifold of sensibility. But *that* is only possible on condition that the flux of consciousness is itself reproducible: within the total phenomenon of consciousness, the three syntheses are translations of the three retentional forms—and what necessarily links them.

Kant's Two Versions of Consciousness "Before a Public That Reads"

The first two Kantian syntheses can only base their unification on the third, "recognition," which inserts the first two synthetic forms (i.e., retentions) into the unified flux of consciousness; for Kant, this unity of flux is what he calls "the unity of apperception." In other words, the role of the third synthesis is to render internally compatible all the primary and secondary retentions woven into the fabric of a consciousness that is always the *same* consciousness whatever the diversity of the primary and secondary retentions traversing it might be and by which it is woven (by which it *becomes*).

The third synthesis is what arranges and *assembles* the first two (they are equivalent to cinematic "rushes" and "inserts") into a single, unified temporal flux, thus forming "the cinema of consciousness" that is projected, having been "pro-tended," toward its becoming.[8]

Yet it would be impossible to avoid noticing that Kant's own flux of consciousness (which he obviously uses as his analytic object and the model for the activity of *all* consciousness) manufactures and constitutes itself and its unity in the course of his writing of the various works constituting his *oeuvre*. How then *not* to notice:

1. that this unity is not given, but promised;
2. that the work's force results from the unification of materialized elements of consciousness constituting the work's literate tertiary retentions;
3. that "Kant" is merely the name of the work's author and thus only interesting to us because of that; further, and we know this only because the flux of his consciousness has been retained *through* his works and *as* his works.

A situation such as this, from which Kant's authority is produced, is possible only because the imagination's primary and secondary syntheses are essentially synthesizable through this synthetic flux (of consciousness) constituting an "objective memory" analogous to a book or film.

There are thus two versions of the Transcendental Deduction in the two versions of the *Critique of Pure Reason*, two expositions, and thus two archivations/syntheses of the history of Kant's consciousness itself and, through it, of the history of philosophic consciousness. The first Deduction (A) appeared in 1781, the second (B) in 1787, each with a different preface; significant modifications to the Transcendental Analytic appear in the second version, particularly concerning the "Transcendental Deduction of the Concepts of Understanding." But what does the second preface to the second edition of what must be thought of as the first edition modified by this second edition-exposition tell us?

Roughly summarized, it tells us that the second edition makes *no changes* to the first other than to make it clearer—and that as a result the first edition remains completely valid despite minor editorial differences. More precisely, it tells us that if the second edition aspires to making "corrections,"

> these improvements involve . . . a small loss, not to be prevented save by making the book too voluminous, namely, that I have had to omit or abridge certain passages, which, though not indeed essential to the completeness of the whole, may yet be missed by many readers as otherwise helpful. (CPR, 35)[9]

These comments are quite surprising when we consider that at certain

points the second edition seems to profoundly contradict the first, especially in subordinating the imagination to the law of the understanding and the internal sense of apperceptual unity, in which the triple synthesis disappears in favor of a distinction between two new syntheses Kant names *figurative* [*synthesis speciosa*] and *intellectual* [*synthesis intellectualis*] (CPR, 164) in which all trace—in fact all question of the possibility—of a triple retention is erased. Yet these contradictions, bearing as they do on the role of the third synthesis and of the imagination, are precisely the index of Kant's difficulty with resolving the contradiction: of the ego with itself, i.e., the ego's very temporality, which Deleuze calls its "crack-up" (DR, 116).

However, the preface to the second edition circumspectly explains that

> [this new exposition alters] absolutely nothing in the fundamentals of the propositions put forward or even in their proofs, yet here and there departs so far from the previous method of treatment, that mere interpolations could not be made to suffice. (CPR, 35)

The two editions thus differ considerably in "mere interpolations," but this is nothing more than a formal gap: nothing basic is affected. The two editions of the *Critique* that are contemporary with Kant are published as one,[10] which Kant himself suggests: "this loss, which is small and can be remedied by consulting the first edition, will, I hope, be compensated by the greater clearness of the new text" (CPR, 35).

In short, there are profound contradictions between the texts of 1781 and 1787, but Kant categorically wants to maintain his own consciousness's unitary flux during the six years between them, though without negating any aspect of this period. Yet from 1781 to 1787 what took place other than the passing of time? A number of events happened during this period, most notably a public critique of the *Critique* that forced Kant to revise it,[11] thus re-writing his own consciousness's history "before a public that reads."[12]

The Ego's Milieu as the Medium of Projection

Consciousness can only become *self*-consciousness when it can be externalized, objectivized as traces through which at the same time it becomes accessible to other consciousnesses. And though Kant could not,

any more than Husserl, conceive of some kind of "tertiary retention," clearly the literal recording of Kant's own flux of consciousness, as he wrote of it in the *Critique of Pure Reason*, is the essential condition for *all* conscious activity, which is the *Critique*'s goal. Kant's thought can only be present(ed) to us as a book—just as it presents itself to him and becomes present in him as he (re)writes, i.e., in his *montage* . . . *facing* himself: on the piece of paper, as projection screen, support, and backdrop of his thought, his understanding's veritable "crutch."

This is why in *Technics and Time, 2* I cited Kant's "Answer to the Question: What Is Enlightenment?": "I understand by the public usage of our own proper reason that which someone makes of it as a *scholar* before the entire *literate* public"—that is to say, obviously, insofar as that public can read *and write*. It is well known that Kant wrote nothing haphazardly: he could focus and identify the unity of conscious apperception by which he knew himself only through the possibility of his being able to write, to preserve and order the primary and secondary retentions (i.e., syntheses of apprehension and repetition) constituting the imagination in his forgetful consciousness—in which memory is finite[13]—in the form of tertiary retentions, the written sentences of which the *Critique of Pure Reason* consists, that have been inscribed, fixed, preserved, selected, and arranged. Preserving, differentiating, comparing, and finally assembling them into the *unity of the book*, which is simultaneously the unity of his thought—this is what Kant can do with the sentences, as objective materializations of his primary and secondary retentions, that make his memory *manipulable*.[14]

Between 1781 and 1787 Kant made a leisurely re-examination of the passing flux of his own consciousness, researching into the ongoing unity of his flux of consciousness *to come*, in that he could fix, identify, and unify his diverse thoughts by materializing them in writing. He became his own object of study and could thus become the object of a re-flexive critique of self-construction: and so Kant could, and could *only*, proceed to an examination of the conditions of his *possibilities*, which were also the conditions of possibility of all of his objects. These control conditions were precisely the ones for which Heidegger reproaches Kant, accusing him of neglecting "the most extreme possibility."

Kantian critique analyzes and synthesizes, but it can only do so because it can manipulate—and, in this case, manipulate *time*, i.e., the play of primary and secondary retentions through their tertiary materializations.

But these critical materializations of internal phenomena are also quite manipulable by the culture industries, whose first concern is the fabrication of consciousness, objectifiable and reifiable because it is originarily fabricated outside itself; it is in this sense that a "Kantian critique"—a "new critique"—is necessary once again today.

In other words, if Kant could and could *only* write that all phenomena are interior, that they "are determinations of my identical self" (CPR, 149), and that "there must be a complete unity of them in one and the same apperception," it nonetheless remains that the self is not simply *in itself* but originarily outside itself. The self is surrounded by [*au milieu de*] "itself," by its objects and prostheses, a milieu that is therefore not only itself but its *other*.

And this *other* precedes it, is *already-there*, as an unlived past[15] that is only one's past on condition that it becomes one's future. This structure of *pros-thetic precedence*, which produces the possibility of retentions' tertiarity, is consciousness's "projective support," allowing us to inherit the past of all preceding consciousnesses, and thus of *ourselves* at this moment—all members of the public reading Kant's books; it is also what allows us to project (to imagine) a future.

This is what we must now explore with respect to schematism, which will also give us the opportunity to investigate version B of the "Transcendental Deduction."

Images and Schema: The Understanding as the Synchronizing Power of Internal and External Sense

In order to make it possible to subsume intuitions beneath concepts, as the "Analytic of Principles" explains (in the "Transcendental Doctrine of Judgment"),

> Obviously there must be some third thing, which is homogeneous on the one hand with the category, and on the other hand with the appearance. . . . Such a representation is the *transcendental schema*. . . . The concept of understanding contains pure synthetic unity of the manifold in general . . . [that] contain *a priori* certain conditions of sensibility. . . . These conditions of sensibility constitute the universal condition under which alone the category can be applied to any object (CPR, 181–82)

during the synthesis of recognition. "This formal and pure condition of

sensibility to which the employment of the concept of understanding is restricted, we shall entitle the *schema* of the concept. . . . The schema aims at no special intuition, but only at unity in the determination of sensibility" (CPR, 182). It is for this reason that we must distinguish *schema* from *image*: the image of a number, for example,

> five
> or
> 5
> or
> V
> also representable by
> . . . . .
> or, in the binary system used in computers, by
> 101,

such an image, which is empirical and thus contingent (since the number can undifferentially be represented by all of these diverse images), is entirely different from the fact of thinking of the same number. Such a thought is

> the representation of a method whereby a multiplicity, for instance a thousand, can be represented in an image conforming to a certain concept rather than the image itself. For with such a number as a thousand the image can hardly be surveyed and compared with the concept. (CPR, 182)

And in fact it is hardly obvious that the following *figure* contains a thousand (1000) dots:

. . . . . .

. . . . . .

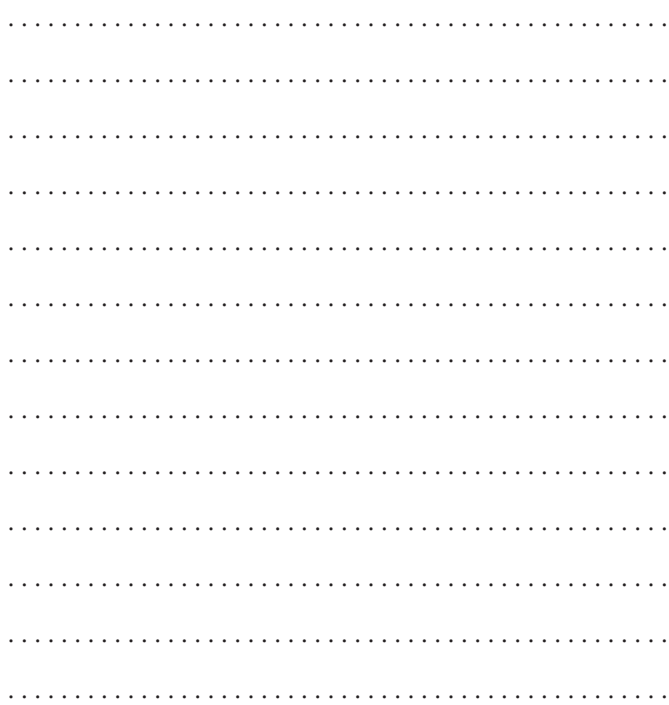
. . . . . .

. . . . . .

. . . . . .

. . . . . .

. . . . . .



This figure, the word for which in Greek is *skhema*, is nonetheless not a schema in the Kantian sense: it is only an image. But then why is a geometric figure that was originally an image and traced (*graphein*) out correctly, as it were, also *skhema* in Greek? And in what sense is a number like one thousand *possible*, as a method conforming to "a certain concept" for the consciousness of which it is the object, *without an image*?

The answer is clear: in *no* sense. A number always in some way presupposes a capacity for tertiary retention—whether *via* children's fingers, a magician's body, an abacus, or an alphanumeric system of writing—which alone can facilitate numerization and objectification. This capacity has a history, during which at one point the *concept* of one thousand (1000) became possible. Properly understood, this conception is first and foremost a process. Until a certain point quite recent relative to the long history of humanity, the number 1000 was literally inconceivable to a human consciousness without the *tools* for thinking it, when 1000 ("one thousand," or the figure/image above, or 1111101000) had not yet been *elaborated*.

Kant himself can only think of the number one thousand (1000, etc.) because he is able to access technical and materialized systems of notation permitting the manipulation of symbols and their fixing by the/an image (resulting in the words "one thousand," which are themselves an image—a sound-image) resulting from an operation of the understanding that is first of all a conjoint operation of the internal and external senses.

Like calculation, which is also manipulation of the external controlling the processes of internal sense, which forgets its origins in the manipulation of space as a pure form of intuition for external sense, it could well be that all operations of the understanding (I am not speaking here of reason, which in any case does not consist of operations but of directorial principles for the uniting of the rules of understanding, which constitute the laws of subjectivity under the authority of the unconditioned; that is, once again, what has never been and will never be present: the *absolute* past and its reflection, absolute future)—it could be that all operations of the understanding are originarily constituted in just such a synchronization, preceding any internal/external, outside/inside opposition.

Such a synchronization of internal and external sense thus conditions the very *activity* of the understanding while being simultaneously subject to the *passive*—here meaning "preconceived"—synthesis of its "tools."[16] In point of fact, number in general can only be conceived of as being determined within a system of traces, any notation system constituting itself through the external manipulation of symbols: there is no *mental* calculation not resulting from the *secondary* interiorization of a calculation by symbolic manipulation, that is to say, through manual behaviors.

> One never grows tired of evoking the first humans as they began to count, as they awkwardly used sticks to draw figures in the sand of beaches or deserts. . . . We can also practice the art of putting regular notches in a piece of wood . . . to help preserve the memory of a number.
>
> All of these material translations of numbers work through the correspondence principle, . . . but . . . things look very different if for each sheep in the herd we put a clay ball in some receptacle . . . or if we make some expressive gesture, using our body as a machine to indicate the number of fish we have caught.
>
> In the first case we have an abstract image of the herd of sheep: one clay ball per sheep. *There is no need to know how to name those first numbers: we can make the correspondence silently.* . . . The receptacle for the clay balls can

> be put into storage by the supervisor, but the supervisor knew how to count, whereas the shepherd was quite incapable of it.[17]

The very *conception* of a number results in the enacting of gestures, through the correspondence principle; these gestures allow for the production of an image that is certainly abstract, but that is an abstract-image-*object*, the support and condition for the projection of a *mental*-abstract-image that does not correspond, at least initially, to any sound-image ("*There is no need to know how to name those first numbers: we can make the correspondence silently*"). The sounding of the number will then lead to a phonatory manipulation no longer working through the fingers but through the mouth. But this conception of the number one thousand presupposes written enumerations producing phonations that have not preceded them, a state of abstraction emanating from the manipulation of symbols called "written numeration of positionality," whose schema clearly presuppose the image, while the very possibility of the image reciprocally presupposes the schema's possibility: from the schematization to meaning, as Kant attempts to locate it, that is, as a process of the projection of internal sense into tertiary memories, which are the images accessible to external sense.

Simondon calls such reciprocity a "transductive" relationship in his critique of the hylomorphism in which Kantian thought is trapped.[18] If the schema can be distinguished from the image, it remains the fact that there can be no manifestation of schema without image, whether mental or not. While Kant, giving an image to "five" draws five dots in a row (thus inserting the *design* ". . . . ." into a sentence, he unfortunately forgets that the *word* "five" [*fünf, cinq*] is *already* an image, and with a long history.

Let me repeat, in the context of the question of the transcendental imagination, that there can be no *mental* image without an *objective* image. In an image like that of a herd of sheep, seen as an abstract representation materially constituted in a group of clay balls, the first numbers (abstract entities) are very concrete memory supports: stream of consciousness, in which number constitutes a determination of internal sense, succeeded by unities forming a numerable and synthesizable totality within the unity of apperception, is retentionally finite. As the memory of its own unfolding, it dissipates rapidly and must be transferred onto external supports, as prosthetic memory as well as fetishes

of the imagination and "projection screens" for all of its phantasms.[19] Retentional prostheses thus bring to the flux of consciousness (i.e., to consciousness itself, which is only flux) the spatial intuitions of the unfolding of its temporal intuitions (= of itself as an other). This is how *ars memoria* are possible.

These spatial intuitions can be retained "objectively," authorizing the concentration or abbreviation of the stream of consciousness: it is possible to read the (number of) dots laid out above as "one thousand" dots, and even though (or because) that reading would be a long one, it would always risk being wrong. But since an image (that number written as "1000") can be substituted for the cursive operation of unfolding of time, it becomes the abstraction for that process as such, its equivalent—after consciousness goes through a long series of exercises beginning by counting on the body itself (on its fingers), then on an abacus, then in a notebook, then mentally, and finally by manipulating a keyboard controlling an alphanumeric machine to which the understanding delegates many of its operations.

It is this general equivalence in which time gives way to a spatial figure that allows for what Marx calls the "general equivalent": capital, as currency accumulating an abstract value *because* of its manipulability, is thus also time placed in reserve, preserved, in some sense crystallized or congealed, as Queneau has said. Tertiary retention, whose most abstract form is money, and which produces abstraction through the correspondence principle, at the same time opens up the possibility of abridged manipulation in which positional numeration is a systematic exploitation in the form of a system of spatial equivalences (images and numbers), of temporal operations (enumerations as the fallible streaming of consciousness).

Consciousness as the General System of Tertiary Retentions and Gestures of Thought

> If I were always to drop out of thought the preceding representations (the first parts of the line, the antecedent parts of the time period, or the units in the order represented), and did not reproduce them while advancing to those that follow, a complete representation would never be obtained; . . . not even the purest and most elementary representations of space and time could arise. (CPR, 133)

Kant is here describing primary retention, but he already believes himself to be within the synthesis of reproduction. He therefore does not see the secondary retention, since it is not exactly the same as the primary. I have demonstrated why the stream of consciousness's retentional finitude brings about the necessity of a third form of retention, consequently resulting in the following: if the *figured* synthesis, the *synthesis speciosa* (CPR, 164), which in the 1787 edition becomes the true synthesis of the productive (not just the re-productive) imagination—the transcendental imagination—if this synthesis allows us to construct space by drawing a mental line,[20] this faculty, which is also the principle of geometric construction, would still not know how to draw the line *in* space: by hand.

Thales, whose experience of revelation is laid out in the 1787 preface, in any case could not reason geometrically[21] without gestures as figures for pure space, that is to say, as the a priori conditions of empirical space, within this space itself. If Thales constructed the figure and was not prepared to proceed with it, he constructed a figure without which there could be no concept. Construction of a concept is precisely construction of a figure, and vice versa. The concept is, to be sure, accompanied by a discourse, but the discourse is itself inscribed literally: it must be just as *fixed* as the figure and must preserve, in sensible space, the trace of a line of reasoning regarding pure space (on intuition's a priori conditions for being). Here, as with numeration, no thought is possible without figurations that are themselves traces, gestures of thought as it must be subsumed into its inscriptions in space, inscriptions that within the intuition of an empirical given manifest a pure intuition of the formal conditions for this empirical intuition—and that, as has already been explored here, are the understanding's crutches, not just those of hope and of faith.[22]

Production is figuration; the second edition of the *Critique of Pure Reason* defines it as "figured synthesis." If the figure is not essential, not to say *the* essential, here, why specify this synthesis as "figured" (*speciosa*): why translate *speciosa* as *figürliche*? "To figure, to give a figure": this is what *skhematizô* means. We must examine the conditions under which schema and the role image plays in it are constituted. Kant posits that schema precedes image; my claim is that they are co-emergent—that is to say, that they share a transductive relationship. Image and schema are the two faces of the same reality, constituting a historical process conditioned by the structure of epiphylogenesis[23]—the general system of tertiary retentions forming the *medium of consciousness*, its "world"

as the spatialization of the time of consciousnesses past and passing as *Weltgeschichtlichkeit*.

Heidegger tells us that in the first version of the "Transcendental Deduction" the third synthesis is of the future and that therefore the synthesis of recognition is also and at the same time the synthesis of "precognition"[24]—that is, of projection. The three syntheses, in their triple nature, thus form the dimensions of temporal ecstasy (PI, 106), though Heidegger never mentions the Husserlian retentional problematic nor, as far as I am concerned, does he finally identify the very heart of that difficulty. But in fact the synthesis of apprehension is that of primary retention of the present, the synthesis of reproduction is that of secondary retention of the past, and the synthesis of recognition is that of protention uniting the totality of the flow of consciousness, as the projection of its future and its end. But it is also what presupposes that very *material projection* (images) as the memory of synthesis that I have called tertiary retention.

This ecstatic triplicity of time is lost in the second version (B) as the result of the reduced explanation of the three syntheses, but also because of deeper contradictions constituting the limits of the Kantian gesture precisely with regard to what I am here calling the tertiary medium of consciousness. It is possible to understand Heidegger's thesis regarding recognition as unitive projection of the future (which I am taking into account here without, however, closely following the various Heideggerian analyses of the transcendental deduction) only if one accepts the same possibility for its future (as "the most extreme possibility") because this past is originarily tertiarized—synthesizable as prosthesis.[25] Any genuine critique of the *Critique of Pure Reason*, a critique that would be in some respect "new," would have to pose the question of this originary exteriorization; this would constitute the possibility of *heritage*; that is, of *adoption*.

In the two versions of the linear conception of time in the *Critique of Pure Reason*, Heidegger sees the typical expression of metaphysics in general (PI, 110), translated through Kant's retreat between the first and second versions through the transcendental imagination's submission to the order of understanding that, under the jurisdiction of reason, leads the *Critique* to return to the metaphysical subject/object opposition and its tradition since Descartes: imagination and internal sense are no longer the marks of subjectivity that the understanding and its categories

determine in order to pass across the threshold of its copula, *is*, into objectivity; this is the primary aspect of the passage from version A to version B (CPR, 158, § 19 of Deduction B).

But Heidegger does not see that the real problem here is the third synthesis, insofar as it *presupposes* exteriorization (*Weltgeschichtlichkeit*) as the initial force of all projection (including the Freudian sense of it)—and that its clear thought in Kant would necessitate a clear distinction between the first two syntheses, and thus the conception of primary retention as the description of the synthesis of apprehension, as the intuitive determination of space and time. But we will see that in the "Paralogisms of Pure Reason" (CPR, 328–83), the tertiary is necessity hollowed out by the Kantian analysis itself.

Paralogisms and Inadequations in Flux. Review of the Chapter and the Question of Adoption

The question of primary exteriorization, and of the projectivity resulting from it at the level of the third synthesis, as the ability to produce tertiary traces, is originarily linked to the question of the failure and protentional inadequation of flux with itself, within which the edge of a judgment and the risk of a decision can be found. "Risk," because protention is the projection of what is still to come in its indetermination and that, open to the possibilities of what *is-not-yet*, must nonetheless emerge from the unity of what-has-been.

This unity is therefore problematic and interrogative, what in *Technics and Time, 1* I called the *who?* whose projective prosthesis is a *what*.

This interrogation is obviously nothing other than the mark of the interruption of flux. If the point of interrogation were to become an end point and the *who?* a *who* (i.e., "so-and-so who did such-and-such—full stop."), flux would have achieved its goal. There would no longer be an engaged protentional process, not for those who would then depend on that past history in order to inherit from this ongoing life flux—achieved, but through memory, eventually in the form of tertiary materialization, re-activating and re-launching the very indetermination of their own future, the full stop or end point having been transformed into points of suspension, since no end point could finally exist.

Because of this, interruption of flux always presents itself as a remainder, a still-to-come, what Heidegger calls the undetermined; it is

in this sense also an irreducible inadequation of the consciousness itself, a différance in the Derridean sense, and a process of individuation in Simondon's sense. This inadequation is introduced through an interruption within "the most extreme possibility"; in *Technics and Time, 1* I explore its being built on the originary default of prostheticity—epiphylogenesis, which is both an originary technicity and a primordial *Weltgeschichtlichkeit*.

The synthesis of recognition, given its projective nature, concentrates Kant's entire project of the flux of consciousness's interruption around itself; we have already seen how it evokes some of the tertiary inscriptions of flux, and that its interpretable inscriptions intensify this inadequation, diversifying the possible interpretations of Kant's idea of the past flow of consciousness "before the literate public." This is why in the second edition of the *Critique*, and in what both Heidegger and Deleuze analyze as a retreat, this projection apparatus (which is a "concealed art" [CPR, 183]) becomes the secret agent of and the magic lantern for the understanding.

When adequation is effective, interruption no longer occurs, although adequation is nothing more than a default: "*I think*" can no longer accompany this representation, which itself cannot present itself; flux has ended. The individual thus bequeaths this "completed inadequation," so to speak, to his or her posterity, in the form of tertiary retentions: a pipe, a bit of garden, love letters, tools, a butterfly or linen collection, a library (even a library of books he or she has written), a cat, photos, a cemetery plot. Anything is possible, even the unmarked grave and the public trash dump.

And

> it is by no means unusual, upon comparing the thoughts which an author has expressed in regard to his subject, whether in ordinary conversation or in writing, to find that we understand him better than he has understood himself. As he has not sufficiently determined his concept, he has sometimes spoken, or even thought, in opposition to his own intention (CPR, 310),

remaining open to the indetermination of what is still to be found (still to come). Through this tertiary inadequation, heirs attempt to be open to a future framed by the unfulfillment of everything ceaselessly attempting to be complete, through the perfect prostheses intensifying the default that inheritors try to fill in, yet that always constitute only more manifestly the fullness of the default: the question of unfulfillment or

interruption is precisely that of prostheticity, though always within the context of the promise (affirmed or denied) of the next adequation of an absolute future.[26]

A recapitulation of this chapter might declare that consciousness is a flux constituted through articulations of primary and secondary retentions and protentions. As anticipations of the unity of conditions of the flux still to come, these protentions currently arising (apprehensively) from the flux of the past (through reproductive imagination) are also what project the synthesis of recognition. This assures the accumulation of all these points of view and of touch, of external sense in general, as (cinematic) *rushes* constructing the unity of a selfsame flux, adequate to itself at the conclusion of its unfolding, differentiated from the projective protention of precognitive recognition something like the unfolding of the final scene of *Four O'Clock*: every spectator of the film "recognizes" the fear of death he or she feels in *adopting* the film's clock-time, since it "preconceives" the "instant of death" in every tick of the clock from the first second of the film, without becoming conscious of the very theme being experienced: this *pre-knowledge* the spectator carries everywhere, in particular to the cinema; it accompanies every cinematic representation as the effective reality of the "I think"; it is also just as much a reminiscence (a "recognition") as a *non-knowledge*. Such is the complexity of all protentional projection.

There can be protentions (as precognitive recognitions) in a flux only when there is unfulfillment in it, or because something of the flux remains still to come, something emerging by necessity, from what has *already* appeared and been retained as subsequently secondary but bearing retentions that are now primary. But this unfulfillment is itself the fruit of an inadequation *within* flux as an inadequation of the flux with itself—the ceaseless possibility opened out by multiple sequences, disjunctions, and bifurcations among which protentions seek a unity of flux that is *never a given*, contrary to the illusion Kant analyzes as "transcendental." These multiply and perpetually possible sequences are equally possible interpretations of the flux's past and decisions that have been made about its future. What are the criteria of these interpretations?

For Heidegger, inadequation is the existential consequence of the diversity and the facticity of the possibilities of the *already-there* that I have been: the retentions I have inherited. But my claim here, contrary to Heidegger's, is that inadequation is first and foremost the effect of tertiary

retentions, and we have seen why they are also the criteria on the basis of which secondary retentions have constituted themselves as criteria.

Retentions are always and irreducibly interpretations (and this is also why inadequation exists), interpretable only when functioning as criteria. But these criteria are also protentions, which is why the past, as a tissue of secondary retentions, is already a mirror image of a tissue of protentions inscribed as their reason for being (like the "monogram" Kant discusses regarding the schema) within primary retentions fabricating the present. These protentions are the goals or *ends*, as Kant says; they are such insofar as they submit to the rules of understanding within the principles of reason, and reason is always to be seen as part of a phenomenal (and thus temporal) series of causes leading to the unconditioned, in other words, to what is no longer temporal: to what we will analyze below, the absolute past. But this unconditioned, as absolute past, is also a mirror image of the unconditioned (and unconditionally *unified*) future, a *future* that is absolute, constituting the horizon of all freedom; "absolute" here means *absolutely open* yet both *necessary* and *necessarily unified*. And it means *absolutely* unified and open in the sense of unconditionally unified and open. This is an obligation inscribed in the difference between fact and law, and that reason must keep open (as its solidity, uprightness, nobility, dignity).

The selections from primary retentions that I make from my secondary retentions are, however, themselves subjected to the process of selection issuing from a past that I have not lived but rather inherited as tertiary retentions constructing the world in which I live *and that I adopt*, a world in which the rapport between the unconditioned and the unconditional is translated by behaviors inscribed in a system of tertiary retentions forming the reality/facticity of epiphylogenesis, that is, as the process of adoption as a lifestyle, a mode of "being that we ourselves are," lifestyle or existentiality in adoption in the sense that before ceaselessly adopting new prostheses (the retentional/technical medium also being that of an incessant inventiveness), tertiary retention is at once the adoption of both new lifestyles brought about by technical changes and retentions of a collective past that was never lived, made accessible by technical prostheses and allowing for transplantings, migrations, assimilations, and fusions that, as we shall see, can also constitute the *We* of an identificatory cinema.

My stream of consciousness joins together with past streams of

consciousness, including my own, made accessible to me through tertiary retentions in various, more or less fragmentary, conditions. These sequences give me access both to a past I have not lived and to my own proper past that I can thus revive, supplying me with recognitions and simultaneously having given me permission through them; they are also anticipations of the conditions of coherence of the pursuit of my own flux, and must be coherent with past fluxes made accessible to me through secondary and tertiary retentions, including those I have not lived myself but inherited through adopting a determinant *in*determination in the form of the exemplary promise of a coherence remaining absolutely still to come.

This coherence, which can be nothing but a unity promised like a future seeking its necessity, is traversed and "cracked" by the irreducible fact that the same gives way to the different and the diverse, and that my performance of myself lets me know myself as an other—that I am myself that/an other; i.e., that "I" am perhaps *not*; that I am not, perhaps, an "I"; but only a fiction, a projection, a phantasm of me, a me adopting personae; that I negate myself in making myself cinematic:

> The form in which undetermined existence is determinable by the I think is the form of time . . . ; my undetermined existence can only be determined in time, as the existence of a phenomenon, a phenomenal subject, passive or receptive, appearing in time. So the spontaneity of which I am conscious in the I think cannot be understood as the attribute of a substantial and spontaneous being, but only as the condition of a passive ego feeling that its own thought, its own intelligence, by which it says I, takes place in it and on it, not by it. This is the beginning of a long, inexhaustible history: I is an other, the paradox of inner sense. (DR, 86)

This fault, this crack, is the *default* of the *I think*—a necessary default [*un défaut qu'il faut*]: I can be an other only insofar as I am incomplete. This incompleteness is a function of an inadequation at the heart of my myself, of my flux as not finished, terminated (which would be the flux that had become adequate to itself, for example, as a finished melody, completely extended, having found its unity): I never cease to become myself as the retentional medium of myself; I never cease to interpret myself—and to write/interpret what is still to come, what is still unfolding of what has already occurred.

The identity of the Kantian consciousness is thus improbable and

hypothetical; this condition of the law of flux, of identity, is not effective, it *is not* and cannot *in fact* ever be—it cannot be anything other than *projected*: identity is the necessary cinema of consciousness. To want the law to be a fact would be to sink into an illusion; the identity would not be a projection of the transcendental cinema (what Kant calls transcendental illusion) to which, however, *nothing could escape* (everything we do aims at and seeks to attain a factual state coinciding with this condition of the law):

> The identity of the consciousness of myself at different times is . . . only a formal condition of my thoughts and their coherence, and in no way proves the numerical identity of my subject. Despite the logical identity of the I, such a change may have occurred in it as does not allow of the retention of its identity, and yet we may ascribe to it the same-sounding "I," which in every different state, even in one involving change of the [thinking] subject, might still retain the thought of the preceding subject and so hand it over to the subsequent subject. (CPR, 342)

The identity of consciousness is its becoming, its remaining-to-come; it is the future of consciousness that only realizes itself at the end—an end at which it would no longer be *there*, however, to be able still to say "*I*": "I" can only be said in the future. "I" always carries with it the question "*Who?*" The affirmation that is the "*I think*" is thus always accompanied by the question "*Who am I (still to come)?*"

But can we remember here a note from the third section of the first version of the "Transcendental Deduction":

> All representations have a necessary relation to a *possible* empirical consciousness. For if they did not have this, and if it were altogether impossible to become conscious of them, this would practically amount to the admission of their non-existence. But all empirical consciousness has a necessary relation to a transcendental consciousness which precedes all special experience, namely, the consciousness of myself as original apperception. It is therefore absolutely necessary that in my knowledge all consciousness should belong to a single consciousness, that of myself. Here, then, is a synthetic unity of the manifold (of consciousness), which is known *a priori*, and so yields the ground for synthetic *a priori* propositions which refer to the form of pure intuition. The synthetic proposition, that all the variety of *empirical consciousness* must be combined in one single self-consciousness, is the *absolutely* first and synthetic principle of our thought in general. But it must not be

> forgotten that the bare representation "I" in relation to all other representations (the collective unity of which it makes possible) is transcendental consciousness. Whether this representation is clear (empirical consciousness) or obscure, or even whether it every actually occurs, does not here concern us. (CPR, 142)

And at the end of the "Paralogisms of Pure Reason," Kant concludes that

> in what we entitle "soul," everything is in continual flux and there is nothing abiding except (if we must so express ourselves) the "I," which is simple solely because its representation has no content, and therefore no manifold, and for this reason seems to represent, or (to use a more correct term) denote, a simple object. . . . This "I" would have to be an intuition which, in being presupposed in all thought (prior to all experience), might as intuition yield *a priori* synthetic propositions. This "I" is, however, as little an intuition as it is a concept of any object; it is the mere form of consciousness. (CPR, 353)

In short, the effectivity of the transcendental is what affects the flux; it is rather an auto-affection that Husserl, as we saw in *Technics and Time, 2*, calls a design: the design of an ideal unity.

Flashback: The Catalyst of Husserlian Cinema

In the final chapter of *Technics and Time, 2*, after having attempted to account for the philosophical and epistemological senses of what are known as the "cognitive sciences" and of their reference to the algorithmic electronic clock we call the "computer," I addressed the way in which Husserl's project moves through the problematics of the temporal object within the historical, industrial, and technological contexts of a becoming-temporal-object in all events, brought about by what I characterized there as the typical twentieth-century industrial synthesis of retentional finitude, through the development of analogic and numeric technologies and the orthothetic technical syntheses of which they are constructed, upsetting the world of literary technical synthesis that had been part of the ortho-graphic epoch.

At this point one might analyze the becoming-temporal-object through a framework of cinema (and, beyond that, of television), positing that it can have an effect on the internal sense of billions of consciousnesses worldwide only (1) because it *already* structures the Kantian consciousness in its three syntheses (and all consciousness envisioned by

it—i.e., all consciousness it could possibly be), and (2) because what is in the first place Kantian cinema's default, what prevents it from thinking clearly about what I am calling the cinema of consciousness here, aside from the fact that the techno-logical revelation of cinematography (as the possibility of repetition within the very identity of an audiovisual temporal object) has still not taken place, is the Husserlian concept of primary retention.

As we explore the decisive question of inadequation at the core of flux, the driving tension of the movement of the flux that Simondon calls a "dephasing," more closely, we must remember what this Husserlian movement consists of and what sources it turns to in the reading that comes the closest to the *Critique of Pure Reason* of which it clearly consists.

Toward a Phenomenology of the Intimate Consciousness of Time attempts to resolve the following paradox: the temporality of the "lived" that is to be described indicates an ideality that is itself non-temporal, that is, is not what is maintained through the unfolding of time. We have seen that phenomenology, primordially concerned with objects in their phenomenality, i.e., the manner in which they are presented to consciousness and thus to the target of their ideality (their unity), is in that sense first of all eidetic. This eidetic is *transcendental* to the extent that it and the idealities/unities composing it (*eidē*) do not exist in the world (any more than does a geometric point): the objective is the constitutive condition for the existent real thus constructed for and by consciousness, just as the nonexistent geometric point constitutes the pure space constituting empirical space.

Thus in Husserl there is a major, double displacement relative to Kant, a clarification of what for Kant is still only embryonic: knowing the structure of phenomena within flux, which the *Critique of Pure Reason* does not clearly distinguish from the object:

> As belonging in a conscious connection, the appearing of things is experienced by us as belonging in the phenomenal world: things appear before us. The appearing of things does not itself appear to us; we live through it.[27]

In other words,

1. the Kantian question of objectivity, inherited from Descartes, is no longer pertinent to Husserl, who warns against confusing the subject/object relation with that of the contents of lived consciousness present

"to consciousness in the sense of consciousness's *inner unity* [*unité des contenus*]." "In the first case, it is a matter of the rapport between two phenomenalities; in the second, of the rapport between lived singularity and the complexity of the lived"—a complexity that defines consciousness understood from a phenomenological point of view. This is a matter of substituting for the object and the subject the *phenomenon* and the stream of consciousness through which it is constructed. This complexity of the lived, as the structure of consciousness, forms the flux that also forms the unity of that consciousness, as the power to unify the lived;

2. the consequence of this new phenomenon/flux relationship, substituting for subject/object, and *activated* by the *eidos* that passes all consciousness through a phenomenon, is the appearance of a concept that is inconceivable for Kant, that of *intentional fulfillment*, which is the express thematization of inadequation within flux—a matter that remained invisible to Kant.

This expression of inadequation, even if it remains insufficient,[28] is a central contribution of phenomenology, along with the concept of primary retention—a contribution that must explicitly support any "new critique." This is why we must return to our previous analyses of the Husserlian philosophy of lived experience. This return will be all the more helpful to our development since Husserl, in certain respects as Kant does, holds that phenomenology has no need of substantializing some kind of *ego* in order to account for the unity of consciousness, which would be a way of reifying the flux, would remove its fluent character, and, as I lay it out in *Technics and Time, 2*, "would establish it as a container independent of its contents: a box in which to place lived experiences, and that can be considered independently of them. But phenomenology, which *begins* with the lived and stays with it, cannot posit consciousness as a frame preceding its contents: it must find it *in* the contents themselves," and as their unity—which is also transcendental affinity for Kant. Thus, in a gesture quite close to Kant but manifestly narrower, Husserl concludes that "the ego, phenomenologically reduced, is thus not . . . something specific that would cruise above multiple lived experiences, but it is simply identical to the unity that is proper to their connection."[29] However, this is the point at which phenomenology's new cardinal concept, which had been lacking in Kant's transcendental philosophy, makes its appearance: fulfillment.

Lived experiences connect one to another in the flux according to

certain laws, here meaning ideal regularities through which certain conditions of fulfillment of lived experience can be satisfied—very close to the synthesis of recognition and of transcendental apperception in the *Critique*. Fulfillment, which aims at an ideality (that is, omnitemporal regularity) is the mark of an inadequation of lived experience relative to its aim, but this inadequation of the lived experience of an object relative to the ideal unity of this object is itself held in a flux aiming at its own unity insofar as it fabricates it *as default*: as a flux aiming at the ideal unity of a nonexistent ego rather than any ideality, but which is seen as the "uni-total unity" (and "rigorous science") of any possible ideality that might exist.

The eidetic is therefore a projection toward what always remains (in) default; an *eidos* of the flux itself, what "knows" its final unity, is projected into all phenomenal *eidos*, just as the *I think* accompanies all of "my" representations. The ego is itself an ideal *aim*, an escape point at once always changing and always identical in its aim, *as* the "melody" of the *Phenomenology of the Consciousness of Internal Time*. And as in the *Transcendental Analytic*, this unitary horizon stages (*aufzuführen*) the structure of all lived experience, assuring their coherence within the laws of an ideal convergence of all their shared experiences as faith in the law of unitary cohesion itself, the law of cohesion among all worldly objects the lived experiences of which *are* phenomena—what Kant calls "transcendental affinity."

This ideal convergence is in fact, however, a *di*vergence, and a divergence that upsets, motivates, activates the *I* toward its unity *as* the exercising of its freedom and its will. But what then is that gap between a flux that is the *I* insofar as it remains inadequate to itself (since it would disappear in its adequation) and the world insofar as it is itself a flux—a becoming—that persists in pursuing, beyond consciousness of this world and beyond the world itself as being-in-the-world? This question opens a double problematic, the second of which will be addressed in the final chapter here, the first of which we are currently addressing:

—on the one hand, an inadequate flux, working toward the end of attaining its adequation, remains a tertiary reality for all surviving consciousnesses, becoming a motif of multiple inadequations for them and re-launching the interruption of their flux;

—on the other hand, the gap between consciousness and the medium it forms with other consciousnesses as both an assemblage of flux(es)

linked into a *We*, and the phenomenal world consisting not just of lived experiences but of things capable of being objectivized, and this gap is another inadequation constituting the place of freedom—that is, in Kantian terms, of the moral and the practical—within nature (i.e., within everything that could act as the object of the determinant judgments of theoretical reason).

By the end of this volume of *Technics and Time* we will see that the problematic of tertiary memory, which is the very heart of these two questions, will force us to disturb the old metaphysical *doxa* according to which, at least from Aristotle to Kant, technics (which is also the organized milieu of tertiary retentions) arises from neither the practical domain as such nor the theoretical domain, in which it is canceled. Technoscience, through which industrial tertiary retention is born, including at the level of the living being, literally inverts the terms of the philosophical discourse on technics, in the sense that it turns that discourse on its head, such that what Aristotle calls *praxis* and *phronesis* become completely inapplicable to technoscience, and equally inconceivable to Kantian terminology.

Technics has not found its role in the metaphysical cinema: it does not exist, as such, in any rigorous sense; it is nothing more than a correlative of theoretical philosophy.[30] But today it has become inconceivable *not* to take actions with quite revolutionary consequences (in the sense of the "Copernican Revolution") as a result of the fact that science, formerly the domain of pure theoretical reason, now having become technoscience, calls out daily for "practical" outcomes (in the Kantian—that is, moral—sense): its porosity between theory and practice is perpetually increasing.

It nonetheless remains *entirely unthought*.

Is it possible, then, to ignore the fact that technoscience is also the means by which science becomes science fiction, i.e., becomes a cinema, a science bursting with images, models, and simulations that have become real—we might call them *chimaeras*—ontological lures that must also be perceived through *doxa* as teratological and diabolical realities? This question of the devil, of chimaeras, and of science fiction is all the more pressing in that it is also the question—and its desired response—of the industrialization of tertiary retentions in the culture industry's production of symbols.[31]

Any proper approach to these questions requires us to re-read Kant

(as the thinker of the diabolical and of the "necessary vices" of "unsocial sociability") through Husserl, not only from the viewpoint of primary retention but from that of the critique of consciousness as an unfolding that animates the processes of fulfillment, which are themselves in some sense the *motor* processes of consciousness as a *projector*. As we saw in *Technics and Time, 2*, phenomenology substitutes the relation

flux / (*real content* → *ideal content*)

for the subject/object relationship. The object has thus become a lived experience of the object for which the desired ideal content is distinguished from the flux in which the real content has been inserted. A lived experience of consciousness implements its intentionality, which then, desiring an object (i.e., *living* that object as a phenomenal lived experience) then constructs the experience of the difference between the content currently being lived and the ideal (eidetic) content toward which it is aiming. This is a difference (Husserl calls it "intentional fulfillment") that consciousness attempts to overcome through a process of anticipation—whose protentional character it would be impossible to ignore.

In other words, the flux is a unity closed in on itself, crossing and weaving "eidetic horizons" that are also the horizons of that anticipation and, in some sense, of protentions as precognitive syntheses of recognition projecting unity outside of it, seeking to be filled, to achieve, to become what it is, to successfully pursue primary achievements, the *eidē*. This is why I am here asking the question I will spend a good deal of time on in *Technics and Time, 5*: given that the *eidē* are neither in the consciousness at which they aim (if not, it would not need to fill up its anticipation nor to fill in some gap) nor in the world consisting of this aim (since the world is constructed through it), but that they are projected through this projection apparatus called consciousness, where the *eidē* reside—or better still, given where they come from, has their image been collected, assembled, and prioritized, and if so, when and how?[32] Refusal to confront these questions, or to confront them on a non-empirical level but without being weakened by their audacity, would be simply to resign in the face of the task of thinking and abandoning thought to miracle and magic. And if we should state that it is not possible to diminish miracle or magic, that is, if one wished to or had to take note of an irreducible cinematography of thought, then it

would be possible and necessary to draw numerous consequences from such an irrefutable fact.

To cite *Technics and Time, 2* in this regard:

> This is the question of a void and a default at the very core of a flux that is re-doubled and pro-jected as an ideal unity-to-come. This eidetic outside-oneself, which is not a transcendence, is inadequation in the core of flux itself. If unitary flux were itself an intention, an archi-process of fulfillment directing the ego's unity through the linking together of all its elements, it would still in some way be inadequate to itself, and it would thus be necessary to describe the completed relationship as:
>
> *[flux / (real content ⟶ ideal content)] ⟶ ideal unity of flux.*
>
> It is as if the non-fulfillment of this unitary ideality of flux would give it its properly fluid character, its movement, its incompletion [*specular* incompletion, we must henceforth add] as its dynamism's source, but in this case, the "flux of consciousness" becomes the *Dasein* of Heidegger's existential analytic, qua being-toward-death. (TT2, 195)[33]

Apperception's Crutches

Just as will be the case for Husserl, Kant already defines identity as a solely formal condition that must not be hypostasized,[34] but that the synthesis of recognition is nonetheless obliged to project onto all objects. In this regard, Emmanuel Martineaud is quite correct to translate *aufzuführen* as "to stage" (PI, 298) at the beginning of "The Paralogisms of Pure Reason," where Kant specifies that the concept *I think*, as "the vehicle of all concepts . . . serves only to introduce all our thought, as belonging to consciousness" (CPR, 329).[35] Consequently,

> since the only permanent appearance which we encounter in the soul is the representation "I" that accompanies and connects them all, we are unable to prove that this "I," a mere thought, may not be in the same state of flux as the other thoughts which, by means of it, are linked up with one another. (CPR, 343)

In other words, although as the second version of the Deduction claims, internal sense (as an unfolding) must be distinguished from the unifying power of apperception and placed under its authority (CPR, 152), the ego

could "be itself" only as permanent unfolding. And where, then, could we locate any permanence beyond the fact of this incessant unfolding as the *most elementary* necessity [*né-cessité*]? That is the question.

And this is also a question lying beneath the refutation of empirical idealism (as distinguished from transcendental idealism) in Kant's "Postulates of Empirical Thought in General." Only within the context of exterior experience "is inner experience—not indeed the consciousness of my own existence, but the determination of it in time—possible" (CPR, 246). This means that

1. consciousness is pre-textual or pros-thetic, and

2. this pre-textuality is a pro-jectivity, a projection, an anticipation in the sense of a horizon of anticipation supported by its pretexts, fetishes, and other tertiary retentions since in the final analysis that is what is involved: "inner experience is itself possible only mediately, and only through outer experience" (CPR, 246), a borderless flux, and riverbanks could not be a flux: borders and banks do not flow—or at least not with the same rhythm as what they border, even as an outline. Tertiary retention is inscribed within this difference: engraved, written, and maintained there, juxtaposed with the flow.

In the end, it is necessary to account for singular "exterior" experience, as tertiary retention apprehended as such through consciousness, as a trace of "myself" as of any *alter ego*, instituting the pro-grammatic dimension of the temporal *We*, the weaving together of cardinality and calendarity—of space and time—across diverse places and commemorative monuments, instruments and devices for baptismal and naming rituals, etc., and across all the apparatuses and complex tertiary retentions through which consciousnesses collectively form relationships with "*esprits*," communicating prayers to the *holy* spirit, marking the common past of a revolutionary spirit as the founding event of a res publica, and uniting the flux of their existences into a common history—a *communally adopted* history. It is within this dimensional context (and because it presupposes a *materiality*) that the "programming" and "culture" industries can develop.

These industries can "schematize everything for their clients" because the "I" is merely projected onto the images it assembles and selects, etc., but also because the "I" can and in fact must obviously delegate selection to those images, not only because of "the law of least resistance" but because it has always already delegated this power to the authority of its ancestors

from whom, in adopting their past lived experiences as *its* past (that is, as what holds the promises of its future within the horizon of a *We*), it inherits only what accords to those ancestors an absolute, dominating credit. This could not be a long-lasting bequest (of [insociable] sociability) without that unconditional belief—that is itself clearly only a projection. In the context of this inheritance, it is the authority of an *absolute past* that gazes on the "*I*," and it is this authority that gives symbols their efficacy.

The projected "I" gathers and selects its image-pretexts, image-objects supporting mental images that are abstracted from them just as a number is at first a packet of clay balls "representing" or "symbolizing" a herd. The "I" is projected as from the very outset the manipulator of tertiary retentions, selecting and categorizing according to practiced conditions—which are the conditions of the "I" as the unified conditions of the temporal flux within which it exists. Such categorical conditions are themselves conditioned by schema: "the categories, therefore, without schema, are merely functions of the understanding for concepts; and represent no object. This [objective] meaning they acquire from sensibility, which realizes the understanding in the very process of restricting it" (CPR, 187).

In other words, the elementary rules for collecting, assembling, mixing, directing, and for post-production and production of flux, are the categories. What I am here calling flux, Heidegger calls "time":

> As pure intuition, time is that which furnishes an aspect prior to all experience. This is why the pure aspect (for Kant, the pure succession of the *now*-sequence) which presents itself in such pure intuition must be termed a pure image. And in the chapter on schematism, Kant himself states: "The pure image of . . . all objects of the senses in general [is] time." (KPM, 108)

The pure concepts of understanding are the rules that schematism "introduces . . . into time," says Heidegger (KPM, 109). This formulation is in fact quite strange: constituting time as time, these rules do not precede it. Whatever they are, the categories are the *possibilities* of time:

> Corresponding to the four moments of the division of the categories (quantity, quality, relation, and modality), the pure aspect of time must exhibit four possibilities in taking form, namely, "the *time-series*, the *time-content*, the *time-order*, and lastly, the *scope of time*." (KPM, 110)

The conditions these categories share with schemas (in which they are

concretized as the possibilities of the flux of time) are what in our analysis of the connection between image and schema we have called, after Simondon, a transductive relation, in which one term does not precede another but is nothing without the other: the "I" is not a box that can be filled with things; it is a *form* constructed by the *dynamics* of a flowing out; it *is* these contents, which it adopts just as it adopts the time of the film characters being watched, in their unified flux.

(This flux is itself a form within a larger flux, which is why I called it a tornado in *Technics and Time, 2*, as I will do again here and in volume 5.)

But idealism's refutation precisely signifies the possibility and necessity of a tertiary retention that is spontaneously an object for a subject, like a terrain and its rock outcroppings that, beside and below the torrent, visible or invisible, give rhythm and form to the torrent:

> Phenomena presented to external sense have . . . something fixed or abiding which supplies a substratum as the basis of its transitory determinations and therefore a synthetic concept, namely, that of space and of an appearance in space; whereas time, which is the sole form of our inner intuition, has nothing abiding, and therefore yields knowledge only of the change of determinations, not of any object that can be thereby determined. (CPR, 353)

This corresponds with another text:

> The representation of something *permanent* in existence is not the same as *permanent representation*. For though the representation of [something permanent] may be very transitory and variable like all our other representations, not excepting those of matter, it yet refers to something permanent. This latter must therefore be an external thing distinct from all my representations, and its existence must be included in the *determination* of my own existence, constituting with it but a single experience such as would not take place even inwardly if it were not also at the same time, in part, outer. (CPR, 36)

The refutation of idealism signifies the need for tertiary retention as the *possibility of inscription* of a permanent representation in something permanent and as synchronization of the internal and external senses guaranteed by the identification of the flux, "which contains nothing of the durable" nor of identity; it is substrata as the condition of orientation.[36] This durability, as "identifying crutch" of the time of apperception defined as an identification process that is itself completely fluid, unable

to be sufficient to itself, marks out a crucial place for tertiary retention: through its durability it constitutes the flux as durability of the past, of what *has passed*.

As such, this object of the *I think*, for example, the book by Kant I am reading, or the book Kant published in 1781, re-read, and re-published in 1787, substantially re-writing it, or the televised newspaper that fifteen or twenty million French consciousnesses can watch simultaneously every evening, or even the World Cup final of July 12, 1998, that hundreds of millions of consciousnesses worldwide could attend through television's interposition—such an object constructed for the *I think* acting as tertiary retention is an *image-object* that is neither simply internal nor external. But that is true of all tertiary retention, of every technical object insofar as it can become a fetish and a projection screen, and thus trace in more or less exact (orthothetic)[37] form the lived experiences of the flux of past, vanished consciousnesses.

The consequence of these analyses is immense, which is why we have had to spend a considerable amount of time on them: tertiary retention is just as spatial as it is temporal, and it conditions the very possibility of distinguishing space and time. This means that the *industries* of tertiary retention, culture and programming industries, are also industries of *speed*.

Synchronization of Flux and the Constituting of a Consciousness Market. On "Septicism"

Tertiary retention's spatiality opens it to every possible manipulation. It allows for the channeling of the great diversity of flux not only in retaining attention at any given moment (cf. the conclusion of Chapter 1), but in allowing that retention to initiate processes of selection within primary retentions, through secondary retentions under the control of tertiary retentions that can be selected synchronically (as "rules") and adopted somehow by the millions or hundreds of millions of consciousnesses each day; tertiary retentions' spatiality allows for a quasi-materialization of those consciousnesses, in any event, their "reification," as masses of consciousnesses that could become the primary material for the "audience industry," otherwise known as the programming industry. The end of the twentieth century thus witnessed the constitution of an

immense "consciousness market" aimed at going beyond all barriers, at becoming global.

But this market, requiring investment on which the return is still to come, consists of a protentional process that is completely new. I have shown that protentions can only exist because of inadequation, and that this inadequation, as a working through of the indetermination of what remains to come (and of the interpretability of what remains of the past), is the fabricator of the ordinarily *diachronic* situation of consciousnesses relative to one another: this forms the singularity of each consciousness's flux, as well as the singularity of each *I think*, which is said to be an automovement, an autonomy of thought, speaking the apperception of a self as consciousness of self: a *reflectivity*.

The industrialized production of tertiary retentions for masses of consciousnesses, however, is a process of synchronization and of industrial standardization of the criteria of selection that combines the unfolding that makes up consistent consciousnesses in a homogeneous entropic soup, a septic tank [*fosse septique*][38] in which "spirit" decomposes. It is just this "septicism" that Horkheimer and Adorno analyze as a mechanism of alienation *and* of the reification of consciousnesses.

Although the diversity of possible interpretations for Kant's flux of the past "before a literate public" constructs a neguentropy as the chance of thought itself, initially for Kant himself as he is exposed to a situation that is "not at all extraordinary," that is indeed quite ordinary, in which he understands "an author better than the author understands himself, not having sufficiently defined his own conceptions and who thus speaks and even thinks contrarily to his actual views," nonetheless today the medium of the mind [*esprit*] (I am here calling "*esprit*" the return of ascendant consciousnesses to one consciousness or to an ensemble of currently living consciousnesses) has been industrialized, and this reality involves the obvious and absolutely current risk of an entropic synchronization of consciousnesses that would add up to nothing less than the end of time—at the heart of a mechanism I have been describing here, given that these analyses, in the same way, obviously do not concern consciousnesses that are excluded from the industrial world.

The very possibility of the end of time, which is not a probability (since it could not be tested out), here means the problematic possibility of the renunciation of freedom and of what could be the only result of that: the politico-spiritual, if not also of the material and corporeal,

apocalypse; in some respect this would be a neutron bomb of the mind, whose explosion would mean uninhabited matter and corporeality—a world of automatons.

The Paradox of the New Protentional Process and the Routing of Desire

As a process of synchronization, the new protentional process is paradoxical; it leads inexorably to a loss of authority and of credit—including financial credit. Installing a permanent *present* at the core of the temporal flux where, hour after hour, minute by minute, a just-past world, disseminated through "live," "real-time" devices of selection and retention are completely subservient to the calculations of the informatic machine.[39] The development of industries of memory, imagination, and information engender the fact and the feeling of a gigantic memory hole, a *loss* of connection with the past, and global deprivation embedded in a glut of information in which all the horizons of anticipation from which desire is constructed are effaced.

While this machine is constructed precisely to bring about, to intensify, and to resurrect the phantasms that could not be recalled by themselves since they are only functions of a systematically *calculated* organizing of the relations among subjects and objects that have become consumers and products, it is predestined to reverse itself, engendering only the weakening of desire and, in the end, complete exhaustion from being increasingly subjected to calculation and the "in-différant" determination of the undetermined, finally risking a worldwide riot that had already been foreseen by Valéry:

> We must ask ourselves whether our regime of intense and frequent stimulants, disguised forms of punishment, oppressive utilities, systematic surprises, overorganized facilities and enjoyments is not bound to bring on a kind of permanent deformation of the mind, the loss of certain characteristics and the acquisition of certain others; and whether, in particular, those very talents which have made us desire all this *progress*, as a means of employing and developing themselves, will not be affected by abuse, degraded by their own handiwork, and exhausted by their own activity.[40]

The world opening along with the new century, a world of numeric integration where television has become an organ of tele-action as

experienced amid the major risk of depression results less, however, from blatant problems of overproduction than from the aggravated phenomena of underconsumption caused by the liquidation of a libidinal economy based on projection—a risk obviously combined with a vast disequilibrium that also gives rise to the system's exteriority and that increasingly weighs on it.

The object of desire must be singular, and the desiring subject must find proper singularity (i.e., reflective diachronicity) in that mirror.[41] But that object-less consumption (the product is not an object, nor does it respond to a desire but to cause or transform needs into a collective phantasm, into mass behavior) only serves to intensify a deceptive frustration. The working out of optional marketing and the pretended demassification of markets through defining a one-to-one relationship between consumer and product changes nothing of the situation described here, any more than the multiplication of the vectors for the diffusion of audiovisual and informational programs: as the results of a marketing machine capable of implementing various mind-deadening tactics, personal "options" are chimaerical, and the diversification of media is nothing more than the more carefully targeted implementation (through new possibilities for the segmentation of the public) of the very same calculation-controlled retentional criteria.

In this way, the entropy of consumption would be aimed at self-cancellation, at nullity, at nothing. Beyond the fact that over the years, through the arrival in society of new analytic capacities and their slow assimilation—perhaps too slow and, in any case, too late for hundreds of millions of the miserable people they have created and the billions still to come; beyond the fact that this slow assimilation will result in the millennial global thunderclap that had its origins in the crisis of the 1970s—this is certainly the fundamental, unifying feeling animating the rich discourse finally arising today against the blatant irresponsibility of the audience masters and their global markets.

The Future of *l'Esprit* [as Spirit *and* Mind]

The numerical integration of the culture industries through convergence of information, audiovisual, and telecommunications technologies invented during the late 1990s is a process accelerated significantly by the opening of the internet to the entire world population in 1992 through

the new interoperability of TCP-IP, through cross-platform availability of image compression and MPEG, and through the massive privatization of telecommunications providers. This integration, generally called "convergence," was a radically new framework for the production and dissemination of tertiary retentions, and a radically new set of media for the *esprit*, the spirit as "public spirit" and the "public mind." During the course of the twentieth century, this media had become increasingly a question of the industrial exploitation of the time of consciousness. This was not a matter of some monstrous evolution through which a "schematics" would migrate outside consciousness: consciousness has never been self-consciousness *other than in being projected outside itself*. But this era of information *industries*, and especially of the analogic and numeric technologies making it possible, this exteriorized and materialized consciousness became a function of the manipulations of the flux of consciousness and of mass projections such that, purely and simply, the annihilation of self-consciousness through its exteriorization became a possibility for the masses of consumers of products and industrial lifestyles dedicated to world markets: this gave rise to the possibility of a homogenizing synchronization of consciousnesses through temporal audiovisual objects that quickly overran national and geographic boundaries, since the numerical is not constrained in the same way as radio broadcasting.

The nascent critique of this manipulation synchronizing consciousnesses during the age of audio*visual* and temporal objects and mass-audience industries cannot and must not be a mere denunciation of the "de-naturing" of consciousness by cinema, but on the contrary the highlighting of the fact that consciousness functions *just like cinema*, which has enabled cinema (and television) to take it over. Consequently, the critique of cinema and television as social phenomena that could destroy consciousness itself (this is the claim of "spiritual ecology") calls for a new and different critique of consciousness, as a re-working of the Kantian project.

The "general equivalent" (i.e., money), as the basic requirement for capital and for a market in which, through the culture industries, the time of consciousness has itself become merchandise, is a condition of the general equivalence of primary-secondary time in its tertiary, manipulable, storable, exchangeable, and thus saleable, spatializations. A great weakness of Marx's project is that he did not think through this capitalistic question of retentions, especially within the context of an age of

numeric culture industries that would become the very sector controlling the industrial future in general—whether it is called the "new economy" or not.

For the industrial future of culture, consciousness itself is for sale. We could vehemently denounce the barbaric degeneration in that fact, in that monstrous state, but it is actually only the consequence of the finitude of the flux of consciousnesses in general, and of their originary prostheticity. It is impossible to struggle against this *possibility* without having realized this fact; that is, without having drawn from such a critique as the one here the conclusion that *esprit does not exist without objective retentional media*, and that the history of this media is also the history of technics—today, of industry. *Esprit*'s future can exist only in a geopolitics of cultural technologies that would also be an ecological politics of the spirit/mind: any politics of consciousness (and what is politics if not, from beginning to end, a politics of consciousness?) is necessarily a politics of technics.

And this, as we shall now see, is necessarily also a politics of *adoption*.

§ 3 *I* and *We*: The American Politics of Adoption

The "Exteriorization Process" and the Geopolitics of *l'Esprit*

Before digitization is a mental faculty, it is an interiorized motor activity that like all motor activities, whether mental or not, in the end becomes a *machinic* activity. Computing, therefore, is manipulating a keyboard, directing an alphanumeric machine onto which the understanding delegates certain of its operations. *Technics and Time, 1* tries to show that human reason and understanding *begin* in the possibility of this process of delegation onto prostheses and into a technical medium with a capacity for an epiphylogenetic transmission that is manifested in digital systems.

In his *Ideas Toward a Philosophy of the History of Humanity*, Herder writes that

> only man possesses in himself a method of moving in a vertical position: this is the organic system reserved for him in view of his species' destination, and also his distinctive character.[1]

According to Kant, Herder commits a teleological inversion in concluding from this factual state that

> the vertical station assigned to man does not in fact serve as a function of his future ascension to reason, nor that he will finally make rational use of his members; on the contrary, it is [according to Herder] from his vertical station that he receives and shares reason. (UH, 96)

To believe as Herder does, Kant concludes, would mean that "reason is nothing more than an acquisition."

> Wanting to determine what contexture of the head, from the exterior point of view according to its form, and from the interior point of view according to the brain, is in a necessary connection with the aptitude to walk upright; and which moreover is to determine how an organization uniquely oriented toward that end contains the ground of rational aptitude, in which because of this the animal participates, this ambition manifestly transcends all human reason: that this last then touches the physiological conductor, or that it has its origin in the ruins of metaphysics. [UH, 128]

In fact, my position here is neither Herder's, since he ignores "the liberation of the hand"[2] through its opening up of the manipulative space of fabrication and through technicity's correlating with the human upright stance, nor Kant's, whose transcendental philosophy prevents his bringing to light this technicity's retentional vocation. Because this retentional medium is essential to humanity as such, and because without the substrata that are its objects (insofar as they are always techniques), human reason and understanding would be nothing but vapor: the "constituent" (the transcendental subject) is constituted in turn by what it constitutes, which means that it is constructed only as an after-effect and that it is always caught in the problematics of its own re-constitution; it is originarily a re-constituted subject and in that sense synthetic (this is what I referred to in *Technics and Time, 1* as the human "default of origin," and what I will refer to in the following chapter, on prosthetic judgment, as being a priori). But in this retentional re-construction without which the "constituent" would be nothing; the question still to be asked, one that remains irreducibly non-empirical, is that of *criteria*, insofar as it is *projective*.

Such an analysis, in which the empirical is no longer the simple a posteriori dependent upon a transcendental apriority, is nonetheless still not an empiricism. Retentions are inscribed in a process of projection through a selection of protentions, a process that is not a simple associationism, and in which the empiricist, who profoundly ignores both the play and its stakes (i.e., the criteria), is a spectator who finally believes inexorably in all he sees, in "the good public" and in bad critique. And who believes, moreover, though wrongly, that he believes only in what he sees.

Kant revalues empiricism, paying homage to and simultaneously

opposing Hume precisely on the question of criteria. But Kant does not understand the question of retention, nor does Hume, who confuses it with practice.

The double resuscitation of empiricization and transcendentalism I am working through here is between North America and Europe. The well-known difficulty encountered in any dialogue between these two spiritual entities translates into a cleavage within the history of *l'esprit* between Anglo-Saxon empiricism and "Continental" transcendentalism. The Anglo-Saxon tradition, extending throughout North America, has been concretized there into a culture of the calculating machine, through implementation of logic-knowledge in service to logistics (cybernetics), so that finally the United States has become the great country of information technologies and of the first great transnational informatic enterprise, IBM. But this industrial concretization is precisely what philosophy, whether "Continental" or "Anglo-Saxon," clearly and broadly proves incapable of thinking, including by all "philosophies of history." If Marx, like Hume, is obviously a great thinker of industry, he still cannot proceed to the question of the industrialization of calculation and the retentional milieu, about which he has finally no more concept than any of his predecessors.

My effort here will be to work free of all trans-Atlantic antagonism constructed from a common inattention by the mind to its materiel, the substrata of flux of which it consists.

Delegation of the operations of understanding to machines has taken place essentially under the influence of American industry. Yet we see nowhere in the current industrial brutality any consequences of this fact of a sudden alteration of consciousness, and even less a monstrous event. But consciousness *is* alteration. This does not mean that alteration might not lead to a monstrous state of things in turn leading toward the annihilation of this consciousness; we cannot exclude such a possibility—quite to the contrary. On the other hand, this possibility of destruction is already contained in, is already a part of, consciousness itself: consciousness *is* this possibility, as a cinematic flux projecting its phantoms onto many screens.

As for the current brutality of American industrial geopolitics: they result from a massive investment of capital in a *technology of rupture*. Said differently, if the possibility of synchronizing the flux of consciousness and industrially organizing calculation with the working through

of criteria of selection within tertiary retentions does not constitute a rupture in the intimate structure of this flux such that they bring about syntheses, then on the other hand there is certainly a rupture of technical systems, and this has immense consequences for the life of the mind and the history of consciousness, consequences that are once again asking the *critical question*. And the fact that this delegation should be taken in hand at the industrial level so that the elaboration of retentional criteria can be seen as hermeneutically subject to the rules of market calculation—as the object of deadening calculation—is something completely new.

In *Technics and Time, 2* I explored ways in which this evolution arises from what Leroi-Gourhan characterizes as the third state of what he calls the "process of exteriorization": that of the nervous system, following the exteriorization of the musculature through the exploitation of natural energies, which is itself preceded by that of the skeleton, which constitutes actual humanization. The culture industries are the fourth state of this "exteriorization," which thus reaches the imagination. This delegation concretizes the cinema, which, though invented in France, has its industrial future in the United States (as the home of Hollywood as well as of IBM) where the cinematic will become the televisual, the massive cultural phenomenon Leroi-Gourhan analyzes in 1965 at the moment when a fully domesticated (American) televisual medium penetrates at enormous speed into European living rooms (46.5% of French families have television sets when Leroi-Gourhan does his work in 1965; between 1960 and 1970 France experienced a 537% increase in television ownership).

Pierre Bourdieu's Television

In *On Television*,[3] sociologist Pierre Bourdieu ignores all of these socio-anthropological analyses. *On Television*, a *book* presented as a lesson in argumentation and scientific rigor, was first presented *on television* as at once on the television screen and intended *for* television, for both spectators and actors; *On Television* makes no reference to the current state of a question analyzed by others than Bourdieu, and indeed before him regarding these media, completely stripped of memory and trapped in the instant, through which *On Television* justly denounces the very function of television: it is as if Bourdieu's consciousness had finally interiorized the operations of what it criticized.

The aspect of this that is of interest to us here is that in the final analysis Bourdieu's question is *not* to envisage even for a moment a structural weakness of thought in the presence of television that should be his principal problem or, in any case, a principal precondition of study, nor that this object calls for any new or exceptional theoretical, philosophical, or scientific effort in keeping with the enormity of its effects. *On Television* ignores or denies the fact that the shift from screen to book is a radical change of support that should itself have required further thought regarding the role of support in general for thought, and of these supports—television and book—in specific. One might be tempted to see in this lack of effort in the face of a *task for thought* the very cause of the book's editorial success: importing the constraints imposed by the screen onto the book, Bourdieu may without intending it have created an excellent marketing product, easily and quickly consumed. Forgettable. Non-unforgettable.

Such an explication, if there are any grounds for it, would nonetheless be insufficient and unfair to the readers of *On Television*. The book's remarkable reception was first of all an indication of a great, deep disquiet within French society, and in particular among the young, regarding the status of thoughts capable of taking account of a process in which television is a major player in our time but transcends it. Perhaps it also indicates a rejection of the very nature and quality of the dominant retentional mechanism, in fact of industrial merchandise in general, most notably food and the production of foodstuffs about which Socrates had already convinced Hippocrates that while they may feed the soul, they constitute a uniquely great risk:

> Then can it be, Hippocrates, that the sophist is really a sort of merchant or dealer in provisions on which a soul is nourished? . . . I tell you there is far more serious risk in the purchase of doctrines than in that of eatables. When you buy victuals and liquors you can carry them off from the dealer or merchant in separate vessels, and before you take them into your body by drinking or eating you can lay them in your house. . . . But you cannot carry away doctrines in a separate vessel: you are compelled, when you have handed over the price, to take the doctrine in your very soul by learning it, and so to depart either an injured or a benefited man.[4]

This is the question posed by the inexhaustible flux that television pours into the consciousness with which its time intertwines—and that the

book avoids, since it is a sort of vase that can be examined, put to the question, critiqued in a way one cannot do with speech or with a flow of images, even when the book has been written *for* television. In brief, this hypomnesia (or mnemo-technique, or tertiary retention) that we are examining here, through which Plato in the *Phaedrus* presents the book as replacing the flux of living words with an artificial, dead memory, *in addition* allowing for the sophistic critique of nourishment while the sophists, for their part, utilize the text and its technical tertiary retentions, producing the *effect* of the *live* within an oral discourse that is not improvised, that does not come directly "from the heart," and that is not forged in the heat of debate but re-transcribes pre-prepared rhetorical effects—which is also what Pierre Bourdieu does, it seems, behind his camera.

In short, Plato, who in the *Phaedrus* criticizes the book for differentiating the time of speech from the time of a speaker-less reading, in the *Protagoras* also accuses the sophist of speaking directly, but within a flux that no longer contains time for reflection. The question is thus very complex: hypomnesia holds the soul's nourishment in reserve in a condition of différance, and simultaneously the contemporary hypomnesic technology of industrial temporal objects allows for the capturing of "soul-time," its intertwining and production of good or evil with no possibility of flashback.

It is precisely this complexity that hypomnesic nourishment "writes," and that sold *On Television* very well, directly re-transcribing a discourse taking place before a television camera, working in "false direct" and without linking to the consciousness of the spectators watching on the Paris Premier network, not knowing or not wishing to be accountable, believing that it could be economically successful.

The success of this mediocre work results from the rising up of an inescapable cultural and intellectual desolation: television is not merely the poverty of its public;[5] it is the index of an *extreme poverty* of the era's conceptual apparatus when faced with the "reality effect." The philosophy of misery it inevitably introduces is also a philosophy of television's poverty, one of extreme deprivation, of which television is obviously and in many ways a cause. But if the claims of the last two chapters are valid, the appearance of this "cause" merely bears witness to the cinematographic character of consciousness, which is what makes television pos-

sible (in the sense of thinkable), yet which necessarily leads to (though this remains unthought) consciousness's paralysis in the face of television.

This is obvious in the very first question Bourdieu addresses: the *time* of television, which is presented as the impossibility of applying reason to it or engaging it in discourse or argument; this condition is in fact quite problematic, producing effects that must clearly be condemned (as we are doing here). But the question of television time is also and primarily one of the political economy and industrial ecology of *l'esprit*, and Bourdieu appears to have little or no sense of the world around him that would allow him to follow through on the thesis of *Capital* in the *spirit* of Marx, if one might be so bold as to say so, since Bourdieu pays as much attention to the engineering in big business and industry as to the poverty of the proletariat.

One way to engage such an immense enterprise might require a return to certain analyses of *Capital* in order to contest them, particularly with regard to time. In *Marx for Our Times*,[6] and especially in the remarkable opening chapter, "A New Writing of History," Daniel Bensaïd shows simultaneously that Marx's philosophy is entirely and primordially a philosophy of time—of abstract time that *is* capital and the measure of work-time, and further that this philosophy, which is thus a political economy, is also a philosophy of history that, denouncing a destinational teleology, initially critiques as idealism a retro-speculative cinematics that projects onto the present and the past a necessity-to-come, through a process of adoption and fiction I have been describing here. This adoption process, implementing what Marx in the *German Ideology* calls "speculative artifices," is also addressed in the *Eighteenth Brumaire of Louis Bonaparte*.[7]

If Marx, in Hegel's wake but reversing him, begins precisely by affirming a "process of exteriorization," if he thinks of merchandising as fundamentally a process of fetishization, he still does not properly analyze the accumulation of *intellectual capital* that has today become an essential issue, and more generally he ignores what I call artificial retention. Even though the *Grundisse* think of the machine as a memory support and place thought in the category of "means of production," and even though as Bensaïd rightly emphasizes, the spatialization of time is at the heart of the Marxian problematic, the *measurement* of time being a grounding condition of capitalism, still the abstraction of social time (as the mer-

chandizing of the workforce) and the formalization of physical time go hand in hand.[8]

The question of time and television must be posed as part of the sector of industrial activity of *program* diffusion because the flux of the audiovisual temporal object presupposes the enslavement of one machine to another. Just as the time of proletarized work requires the enslavement of the machine (in the mechanical sense of the word) and of the machine operator, so a worker who is deprived of all knowledge and skill and renamed not a *worker* but a *proletarian* is also enslaved. As Simondon has shown, this process of worker enslavement leads to the worker's loss of individuation and displacement into the machine "carrying tools."[9] This is the proletarized worker's "misery," which only increases when the machine becomes programmable and numerically controlled and can finally function without the enslaved proletarian.

Even though Marx understood that one can genuinely begin to *think* only through analyzing the *material* of technics and of technology, *On Television* follows the disastrous spirit of a long scholarly tradition as old as philosophy itself in which technics and technology are trivialities and, as a result, engage in no analysis of television's technical dimension—and even less of its phenomenological consequences in terms of individuation. The outcome is the pauperization, the impoverishment, the starvation of consciousness,[10] resulting in the fact that this disastrous de-spiriting, within the framework of *l'esprit* as the metaphysical attitude par excellence, is thus in great need of a radical critique and a revived criticism, rooted in a total inattention to questions of objective memory and to retentional devices of which machines are the concretizations.

From Horkheimer and Adorno to Bourdieu, the embarrassment of "thinkers" faced with the animated image and the industries of culture is immense. They are being critiqued here because they are obstacles to the possibility of thinking what has already occurred, what is occurring, and what is about to occur, and of thinking the essential still-to-come with regard to the question of cinemato-graphy through which they develop. This task of thinking is all the more urgent since today it produces a technological convergence that fundamentally redistributes empirical reality and the space of the political decisions that must be made.

Faced with this situation, politics is seriously stripped away, particularly in Europe. Yet among the initial consequences of this convergence, of which *On Television* says not a word, there is the well-understood

perspective of a new age and an unprecedented intensifying of globalization, and thus of the terrible problematics of peoples and nations.

Metropolis. Adoption as the Unifying Condition of the *We*

In 1917 Upton Sinclair wrote that

> with cinema the world has been unified; that is, Americanized. (PN, 205)

A process of global unification has taken place *through cinema*, about which Sinclair tells us that it can take place only under the leadership of the United States. And who authorizes this affirmation? How is cinema a necessary unifier of the world, and why does this world unification necessarily signify its Americanization?

We have already said that schematism can be industrialized only because it is always already implicated in the play of tertiary retentions that are projections of the flux of consciousness beyond it, materializations whose manipulation is open to every exploitation, including—increasingly—economic exploitation. We might now ask why the industrialization of the schemata is also a process of the unification of the world and why this process must be produced in Hollywood. Why, in other words, Hollywood could and must become the *capital* of the world, the *metropolis*.

Cinema is characterized by the coinciding of the film's flux and the spectator's consciousness, and by the phenomenon of the adoption of the film's time by the consciousness of which it is the object. In fact, just as cinema can only parasitize schematism because the work of consciousness—of the *I*—is already somehow cinemato-graphic, the American geopolitics of "Hollywood missionaries" exploits a dimension that constitutes politics throughout the cinema industry, constitutes a *We*: *adoption*, whose radical nature has been discovered and developed in the United States.

We have seen that Kant's consciousness, like all others making *public* use of reason, could and must search for the unity-to-come of the flux of which it consists, identifying and materializing the diversity of all that emanates from this flux as thoughts in the form of tertiary retentions, then re-activating, ordering, manipulating, and interpreting them

in order to find a follow-up to this flux, and simultaneously to open a future for it that would cohere with this past, mixing, incorporating, and encrusting the elements of the pasts of other consciousnesses (such as Hume's, Wolf's, or Leibniz's). But this past is re-activated and animated by a protentional process that is a *desire* as consciousness-of-self, a narcissism, and this unification process of the Kantian consciousness, an exemplary projection of what animates all consciousness, also structures this *We* that Leroi-Gourhan calls the *unifier-to-come of human groupings* (which Kant sees as the "ideal" of all consciousness).

An *I* claiming to make rational and universalizable statements would always be able to say "we," and this is precisely what *We* do in this context, asking "us" whom "we" are speaking of and in the name of *what* or *whom* "we" allow ourselves to speak in "its/her/his" name.

So how, why, and in what conditions can we still say "we"?

For Leroi-Gourhan, the unification process is one of adoption through which it is possible to construct, solidify, consolidate, perpetuate, and *extend* a *We*, to amass other *I*'s and other *We*'s. The general rule is to define this constitutive social—ethnic—group as sharing a *common past*, and this ethnic way of thinking is also how the ethnic, and the territorialized community in general, thinks (about) itself. Yet such a definition, giving credit to a myth of pure origin and coming from a past that is transmitted *locally*, is structurally and literally *phantasmagorical*: groups are founded through their common connection to a *future*. Ethnicity (and beyond that, all human social grouping) is above all the sharing and projection, through the group itself, of a *desire* for a common future. No human group is possible without desire; the link to the future controls ethnicity's "unifier-to-come":

> The ethnic . . . is less a past than a becoming. The initial traits, those of the remote group creating the political unity, are blurred, if not completely effaced. In order to become a people, the mass of disparate humans tend to be successively unified linguistically, socially, technically, and anthropologically. Thus there is, in the face of the habitual conceptions of Ethnology, which is normally turned toward the past . . . , another aspect of Science in which the future commands the realization of ethnic unities.[11]

A truly common *past* shared by members of a given group is not only not a requisite condition for the group's appearance, but in fact would be an impossibility for such a group to construct, as Leroi-Gourhan

demonstrates, citing the example of China. Connection to the *future*, which *does* found groups, obviously requires them to share a common past, but this past can only be common through adoption, concretized only through projection. As phantasmagorical as it can be, this past is *the image of the We-to-come*, the sum total of primary, secondary, and tertiary retentionality constituting, *through projection*, the protentional mechanism that is, finally, the identificatory flux of an *I and* the adoption of a common *temporal* navigational mechanism. It is a "fantastic" panoply of mechanisms "helping us to become," according to Valéry:

> The *past*, more or less fantastic, or more or less organized after the fact, acts on the future with a power comparable to that of the present itself. Feelings and ambitions are stimulated by memories of readings, memories of memories, much more than resulting from perceptions and actual occurrences. . . . The idea of the past only has meaning and value for human beings if there is a passion for the future. The future, by definition, contains no image. History provides the means for thinking the image. It forms, for the *imagination*, a tableau of situations and catastrophes, a gallery of ancestors, a formula of acts, expressions, attitudes, and decisions offered up to our instability and our incertitude, helping us to *become*.[12]

This adoption process works only if it is concealed: it can *take place*, says Ernest Renan, only if it is forgotten:

> The forgotten, and I would even say erroneous history, are essential factors in the creation of a nation.[13]

The capacity to forget initiates the selection process of the "rushes" and "montages" defining the *We* whose historico-political adventures are newly staged each time, as the retention and protention of its past and future sequences. The members of an ethnic group are chiefly characterized by the fact that they construct their bodies within the unity of a group that, existing in time, finds unity in the fact that it is deployed and affirmed in the course of its future: that it projects, through the working out of this selection and its required "criteria." Group organization is constantly overdetermined by the need to reinforce the identity of this always-to-come unity. This is ethnicity's "unifier to-come," the entirety of the process of what Étienne Balibar calls *fictive ethnicity*.[14] Such mixing is the precondition for the formation of human groups that become increasingly vast throughout human history, though that certainly does

not prevent them from being internally very different, if only through the intensification of the division of labor.

But this adoption process rests on the possibility—opened by epiphylogenesis (i.e., by technical memory)—of gaining access to a past that was never lived, neither by someone whose past it was nor by any biological ancestor. The process requires access to a false past, but one whose very falsity is the basis of an "already-there" out of which the phantasmagorical inheritor can desire a common future with those who share this (false) past by adoption, phantasmagorically. In a certain way, the privilege Leroi-Gourhan accords to the future (to the projection of a future made common through the *We*) is very close to the "primacy" of the future in the triple ecstasy of time in Heideggerian *Dasein*.[15] And it is also Heidegger whose thought espouses this facticity of the inherited past, the fact that I inherit an unlived past that may well not be that of my ancestors but that nonetheless becomes *my* past to the degree to which I transform it into a future. Heidegger nearly always allows for this thought, however, on condition that this philosophy excludes the technical question of the transmission of what I am calling the epiphylogenetic past and what Heidegger in *Being and Time* calls *Weltgeschichtlichkeit*. But this radically alters the analysis. If these Heideggerian references lead to the instauration of the question of adoption over and against the nationalisms and neofascisms that are arising yet again today, this is obviously only on condition that we recognize a primordial technicity in it, which is what Heidegger most probably hesitated to do at that point, and that in the end he opposed. In 1933, the analyses of developed heritage in *Being and Time* no doubt appeared to Heidegger to be not only compatible with his flirtation with Nazism but at the very heart of this ephemeral "engagement," which resulted from an exclusion, expressed or not, of the very possibility of grafting and adoption as they were finally purely and simply assimilated into the possibility of *calculation*.

To think heritage through epiphylogenesis would mean in effect that technology would have to be as fully adopted as the false past constructing the projective *We*. And it would obviously entail the adoption of projection technologies themselves. This process of adoption is first and foremost "material" and "ideal," and the mixing at the origins of fictive ethnicity is at once a commerce of bodies, ideas, and goods.

The adoption of technics (i.e., of objects of everyday commerce) and of a false past through which a common future can be projected, under the

eschatological authority of a final judgment that the nineteenth century called "emancipation" and "progress," and thus the construction of a *We*, are the two forms of adoption simultaneously required for the originary default of origin, of which Epimetheus's "fault" is the mythological story: the question of adoption is instantaneously that of prostheticity and of all it implies—the weight of tertiary retention in all flux, including the migratory.

Modernity as Organization of Adoption

If adoption constructs communities, this is also and primarily because technical organs, without which no human society would be possible, are *displaceable*, and because societies can both exchange and adopt them. This is why the conditions of adoption in general are specific to each age and, when they exist, to mnemotechnical specificities. And this is *also* why the question of adoption is indissociable from that of commerce, and therefore of the market.

Technics is ceaselessly evolving under the pressure of technical *tendencies*, and as this evolution has suddenly accelerated even more in the early twenty-first century with the capitalism of big industry, it has become absolutely necessary to (re)organize the adoption of new industrial products that themselves then become what we now call *consumable goods*. Social resistance to technical change is spontaneous, given that social *inertia* is part of this connection's law. The society out of which the Industrial Revolution was born still saw stability as the order of things, even while innovation destabilized social situations that had been familiar to all, in which nearly everyone could find something of interest, having attained the comforts of a steady income—or at least having acquired the habits of those who had. In the end, the evolution of technical systems generally results in maladjustments of the system relative to other social systems, but the Industrial Revolution introduced a conjoining of mobile capital and enterprise, between science and technics, between industry and technics-becoming-technology, that has resulted in the initiating of a permanent, and perpetually accelerating, *process* of innovation.

It therefore became necessary to organize this innovative adoption process throughout society and to forcefully pervade daily life with technics and the new common objects thus produced—from railroads to cinema and the bicycle, by way of the toothbrush and toothpaste; the

development of *information* and marketing is the underlying condition of this "socialization of the new," as a process of mass adoption that we now in fact call "modernity." *Modernity*, which actually begins before the Industrial Revolution but which is massively, historically realized in it, is our term for the adoption of a new connection to time, the abandonment of a privileged tradition, the definition of new life rhythms, and today an immense confusion throughout retentional mechanisms, finally resulting in an industrial revolution within the conditions of adoption's very means of transmission.

A modern country's "modernity" is measured by the degree to which its adoption is *organized*. Before the Industrial Revolution, adoption occurred according to traditional rhythms and rituals that framed all change within the horizon of a primordial, eternal stability: change was seen as an accident. Modernity has reversed this point of view: *stability* has become the accident, the exception, and change the rule. Since the nineteenth century, the Industrial Revolution has imposed the development of many networks on us, networks without which it would have been impossible to permeate society with change and thus to amortize the investments required for a machinistic development requiring both constant renewal and ever-expanded markets. Information itself now connects investors and entrepreneurs just as it does consumers and products. The first press agency, created in 1834 by Charles-Louis Havas,[16] made extensive use of the first telecommunications network, the electric telegraph, starting in 1844. It was already clear that information is inherently merchandise; its industrial production has today become the primary sector of commercial investment.

Adoption, which was once largely determined through politico-religious rituals, can as a result of its mutability be subjected to logistic calculations hegemonically controlled by marketing systems and media forces. These constitute the new tertiary retentional media, whose materiality made industrialization possible, and were then transformed through both the invention of the daily press's ability to print hundreds of thousands of newspapers each day, and the photograph. These (press and photograph) are the techniques that, when conjoined with compulsory public education and new rhetorical techniques such as reporting and the "news item" (i.e., through the story line and the sensational staging of the emerging world), brought about unprecedented readerships before the end of the nineteenth century. This industrialization, which is

of course also that of *l'esprit*, directly affects conditions for the constructing of a *We*.

The unification process of a *We* is an identification, an organization, and a unification of diverse elements of the community's past as they project its future. However, this assumes that

1. such a unified past exists phantasmagorically (as it is most of the time): it assumes that this past of the *We* was never actually lived by this or any *We*, nor by anyone currently living, nor by any of their ancestors;

2. this *We* nonetheless constitutes a coherent flux—its "History"—through montage and projective staging (i.e., one capable of projecting in advance, capable of *desiring* a common future as well as a past *neither* of which is actually common);

3. such a retentional base provides access to this non-lived past, and its adoption through protentional projection, which is itself concretized via tertiary projection mechanisms;

4. the unification process is an adoptive process founded on the "process of exteriorization"; that is, on technical media insofar as they are also retentional;

5. technical media having been industrialized, the conditions of adoption are subjected to a new criteriology of retentions, creating a new protentionality of global reach.

The result of this evolution, whose effects have only been fully registered since the massive deployment of television worldwide, then further intensified by the digital networks of a cultural hyperindustrialization whose effects are being increasingly perceived as *evil* and, paradoxically, as the source of *dis*cord rather than accord, of arrythmia rather than synchronicity, of the *diabolic* rather than the *symbolic*.

I and *We*. Appearance of the Question of Malaise

I and *We* are clearly not the same. The *We*'s forming human groupings and civilizations are neither living nor even mortal in the sense of an *I*, despite a "mortality of civilizations" occurring as a crisis of spirit fought in Europe and that left it in ashes in 1919, then again in 1944, and that continues to be fought in Hollywood.

It would always be possible to eliminate all traces of the tertiary, to destroy cities, burn libraries, eliminate all idioms and religions, and if need be, all those who practice them as communities of *I*'s forming a

We, precisely because they generally synchronize their flux in a shared calendar, through their priests, idols and fetishes, festivals, and songs; all the Indians could be exterminated, turned into "tabula rasa" for "us," but still the *We*, while it is not immortal, is also not mortal as the *I*, since it is not living as such: this *I* does not have primary retentions nor the unity of a synthesis of apprehension—no "living present" in the Husserlian sense of the *I*; it is thus no longer exposed to the paralogisms of reason *as* the *I*.

Yet it still has *its* paralogisms, which are the object of the critique of political philosophy. As different as the *I* is from the *We*, as the unity of the *I* the *We*'s unity is always projective: it is not a given, remains always to-come, and this common projectivity produces the confusion of these two processes of individuation. This is why it is all the more necessary that *I* always project a *We*, as *we* have already seen. My claim is that *I* and *We* are individuation processes in the Simondonian sense: the individual, whether psychological or social, and although the *We* is not indivisible as is the *I*, is an incomplete process of a metastable equilibrium: it is neither in stable equilibrium, which would be its completion, nor disequilibrium, which would be its decomposition—either leading to its disappearance. Nor is it purely synchronic, which would amount to a state of equilibrium, nor purely diachronic, which would be disequilibrium.

But these two individuation processes—these two metastable equilibria—are two facets of a singular reality that can be apprehended after being analyzed separately but that must then be re-assembled in order to be understood within the context of the unique processuality that both includes and characterizes them: the individual psyche is originarily psychosocial, and the social is not an "intersubjective" aggregate of already-constituted individuals. The individuation of the *I is* that of the *We*, and vice versa, even though *I* and *We* differ; this is the case because an adoption of the same temporal objects can happen across masses of individual consciousnesses synchronizing their flux. But in *this* case, as we will see, it is not at all clear that there remains a metastability such that *I* and *We* can differ both over a long time and dynamically, though they can continue to differ *and* to individualize while remaining both different and convergent. We might therefore fear that such an entropic process might result in the industrial synchronization of the time of consciousness.

And a synchronization such as this is possible only because all *I*'s are *already We*'s; it must be remembered that *I* and *We* are two aspects of

the same individuation process. The individuation of the *I* is necessarily also that of the *We* that it projects from a "pre-individual reality" that is common to them:

> Participation [in the social], for the individual, is the fact of being one element in a much larger individuation through the intermediary of the charge of pre-individual reality contained within the individual; that is, of the potentials it conceals. (IPC, 1)

This "charge of pre-individual reality" is a potential of adoption. The individuation process results from an irreducible inadequation at the heart of the individual, as always incomplete but also as the play of "pre-individual forces" in the individual: interiorized, interpretable tertiary retentions that are equally at play in the social individuation in which the psychic individual participates in the individuation process. Interpreted in this way, the pre-individual (different from Simondon's interpretation[17]) is the "already-there," the potential for an inadequation instantiated by the *psychological* individual. But this also creates the *social* individuation of the group, in such a fashion that it is also the bearer of the same force of pre-individual reality as the potential differential of inadequation.

There is metastability in the dual processes of *I* and *We*, precisely to the degree that psychosocial individuation is the differential of an individual identity that is *never* fully constituted: such an individual always remains still-to-come, as either *I* or *We*—metastability is its *duration*, its perpetual incompletion, the constitutive element of its individuating dynamic, the perpetual deferring of its completion.

In psychosocial individuation, the pre-individual is individuated *simultaneously* socially and psychically, since the psychic and the social are two poles of a transductive relationship constructed as an always-differing resolution, but that is always productive of structures and stabilities occurring along with this differentiation—of the tensions concealing the pre-individual already-there that is common to them, translated through an inadequation at the core of the *I* and the *We*.

However, the inadequation animating both the *I* and the *We* is first and foremost an inadequation of the *I for the We* and of the *We for the I*; their ideal projective convergence is effectively an originary *di*vergence in their individuating dynamic. *I* and *We*, in forming the two faces of the same individuation process, do not coincide.

> Individuation in the form of a collective makes the individual one of the group, associated with the group through the pre-individual reality "he" bears within, reunited to that of other individuals, all being individuated in a collective unity. (IPC, 19)

These two individuations must be thought within the "category of the transindividual that accounts for the systematic unity of interior (psychic) individuation, and of exterior (collective) individuation" (IPC, 12), and this double face of individuation, as the composition of inadequations, is an adoption, a projection of a future born out of a past that is *not* that of the *I* but that through which the individuation process of the *I* makes its connections. In this sense, the individuation of the *I* follows that of a past that has become common to a *We*, as tendentious, ideal, "fantastic." As the *I* is individuated, it simultaneously follows the individuation of this *We* itself through its own individuation/differentiation/unification at the heart of a group of other *I*'s that are also individuating:

> The integrated adult . . . prolongs and perpetuates the movement of individuation that gave it birth, in place of resulting solely from this individuation. . . .
>
> The agreement of the individual and the social is constructed through the coincidence of two reticulations; the individual is obliged to project its future through this social network that is already there. . . . From the social past, the individual absorbs certain tendencies and tends toward certain actions rather than true memories; he thus takes what would associate him with the dynamic of his future and not the reticulation of his own individual past. (IPC, 176–77)

But the *I* that is never the *We* can participate in the individuation of this *We* only by *op*posing while *com*posing it: it individuates itself as what, in the individuation process of the *We*, enacts "a sort of reversal":

> The social and the individual minds operate inversely, individuating in opposition to one another. This is why the individual can appear to herself to be fleeing from herself in the social and approving of herself in what opposes the social. (IPC, 177)

This is exactly the effect of inadequation. If the group is actually a synchrony, a "syncrystallization," a common process of individuations resulting in a transductive relationship in which the group forms and transforms, this synchrony is possible only through a diachronic

indetermination, a syncrystallization being possible only because the group is "tenuous and partially undetermined, like the pre-individual being before individuation," in just the way the individual psyche is as well: "an individual who is absolutely, perfectly complete can never be part of a group: the individual must be the bearer of tensions, predispositions, potentials" (IPC, 183). In this respect, the living being is maintained throughout its coming-to-be as the individuating transmission of a pre-individual existence, as an operation continuously re-inscribes it within the flux of the individuation process. But even if Simondon uses this expression—"a social network that is already there"—there is never for Simondon a concept of the already-there *properly speaking*: it is never anything more than a retention. Simondon is a descendant of Bergson: like him (and Kant), Simondon misses the singularity of the primary retention discovered by Husserl. Simondon never *forcefully* asks the question of *tertiary* retention as such, though he does speak of it, most notably when he writes that "a purely spiritual, bodiless group cannot be created, one without limits, without attachments; the collective, like the individual, is psycho-somatic" (IPC, 176–77). I have already emphasized (cf. Introduction) that metastability accounts for psychosocial individuation as differing from an individual identity that is never clearly constituted as such, confronted with the identity of technical objects and of all already-constructed artifices in general.[18] Simondon does not take this "advancing" of technico-objective identities onto psychosocial identity into consideration (on the other hand, it is present in Marx, as Daniel Bensaïd points out). But it is also the basis of what in the previous chapter I referred to as the *permanence of substrata* that makes the permanence of representation possible, as tertiary retentions, within the flux of consciousness seen as a synthesis of recognition.

We will examine all of these questions in the final volume of *Technics and Time*.

Recall for a moment that individuation is always a bipolar process that is immediately multipolar: the psychic individual, relative to the group, is like the social individual constructed from other psychic individuals, and if in the projection of her unity all *I*'s are projected through the projection of a *We* that is itself phantasmagorically unified, this *I* is thus always an individuation of multiple *We*'s. This originary multifariousness is in turn made possible by the immobility of retentions and the facticity of all resultant adoptions; it is also what puts the *I* into motion—that *e-mits*

the *I* (this is the "effectivity" of inadequation). The *I* contains a gap that necessarily projects multiple ideal possibilities of the self as *We*. Emotion is present here: conflicts and dramaturgy, intrigues and stories; metastability is resolved in movement, structure, and transformation.

Exceptions and Deception

Multipolarity is the diachronic actualization of the potential for dephasing contained in "pre-individual reality," such that the individuation of the *We* syncrystallizes into an always-provisional synchrony that is, in this sense, metastable; there is a predisposed opposition within the psychic individual against the social individual, in that the *I* is always aimed at an *exceptional I* that is at once

—what is inscribed in the *We* as the irreducible exception to the *We*'s interior, like the exceptional *I* relative to other *I*'s, given that it is irreducible to all other *I*'s forming the *We* (and in this sense opposed to this *We* as a tension inhabiting it and putting it into motion;

—and at another level, the *I* that projects its own exception to a level of exceptionality that it confers, confides, or delegates to the *We* rather than to itself, and to a singular *We* onto which it has projected its singularity by projecting *itself* there as belonging to an exceptional community.

These two dimensions of *exception* are always either patently or latently at work, even in the "private" mode, suffering through deceptive banality in all psychosocial individuation. There is always an exceptional *We* driving any *We*, even at the most universal level where according to Heidegger it is a matter of "the being that *we* are *ourselves*," i.e., a *privileged* being that alone can respond to the *question* of being within the onto-theology of Judeo-Christians, a chosen people created by God in his image, or for the bourgeois revolution, as a people invested in a cosmopolitan mission, as Marx says, toward the most distant revolutionary community, etc.

This is the cinema of the *We*.

"Exception" need not be sacralized nor valorized here: what is exceptional is everything that participates in the diversification interior to unification, positively or negatively; that is, everything that contributes to the dynamism of its various costs. There are beings exceptional for their beauty as for their ugliness, for their fineness as for their coarseness. On the other hand, the retentional positivity of the exception can be defined

as that which allows exclusion from death and can therefore reside in memory like that which can reside beyond the self as a heritage *beyond mortality*, through which the individual bequeaths a *completed inadequation* to descendants in the form of tertiary retentions (see the section in Chapter 2 entitled "Consciousness as the General System of Tertiary Retentions and Gestures of Thought), in the Kantian sense, but that can also be removed in the most general way from all structures of inheritance, since this inadequation is a matter of heritage itself as a condition of what Alain Badiou calls "the identity of Man as immortal."[19] And this is the sense in which Simondon can write that "the only chance for the individual, or rather for the subject, to be able to survive in some fashion is to become signification, to ensure that something about her become signification" (IPC, 207). This is only possible because

> through the intermediary of the technical object an interhuman relation that is the model of trans-individuality is created. . . . The object produced by technical invention carries with it something of the being having produced it, expresses of this being that which is the least attached to a *hic* and a *nunc*. (IPC, 207)

When it is stabilized and lasting, signification is essentially what can be transmitted, supported—visibly or invisibly—by substrata that must also be understood and clarified in order to stabilize their flux (that is, to metastabilize it), a post-Newtonian concept that escaped Kant.

Without the possibility of this *legacy* of signification there could be no delegation, socialization, social representation, etc. Conversely, since there is always already delegation—exteriorization—there can be legacy and inheritance. But it is this very inheritance that the synchronization induced through industrial control of retentions makes less and less probable.

I have said that at the level of the *We* no "living present" can exist, in the sense of the Husserlian *I* or, more precisely, of the synthesis of apprehension in the Kantian sense. This is nevertheless precisely what the industrial synchronization of the time of consciousness is aiming at,[20] but here it is a question of a synchronization and a synthesis of apprehension that have been confused with each other—of a "present living being" whose primary and secondary retentions have been confused with tertiary retentions. This kind of synchronization, canceling all inadequation through a kind of short-circuiting of individuation (of temporalization), thus also canceling all diachronization, eliminating transmissibility (as signification) itself, and

finally all meaning, seen as the process of bequeathing and delegating the significations that give rise to moments of exception.

A synchronization is always at work in public commemorations, private or public festivals, and other cultural moments, but always as *moments of exception*. The sheer happiness occurring in consciousness as it listens to music, for example, accompanying most if not all religious rituals as well as secular celebrations, or the dances of both older and younger generations, shows how this synchronization is originarily registered. But it also shows the link between synchronization and exception relative to the *We*, the diachronization and exception of the *I*—the *One* always sowing confusion. And yet this synchronization, as it becomes quasi-permanent and systematic in the various media, and as it tends increasingly to be for the living being part of the *becoming-media* of all instruments of work and of socialization (including the school, as we shall see)—this synchronization is the arrival through these very media of a generalized loss of individuation and a swallowing up of exceptional moments in the continuous event-ful flux the programming industries unleash on the hypermasses of consciousness. This loss of individuation, an immense and disquieting process of deception, no longer strikes only the proletariat as was the case with the "tool-carrying" machine, but at society in its totality and most of its lifestyles that had essentially been "adopted" through this new vehicle called marketing as "make-believe technologies," as Régis Debray says, or "the economy of opinions," as André Orléan has it.[21]

The *I* can be taken for the *We*, and vice versa; thus the anonymous *One* can dominate exclusively, reigning over and through the totalitarianism, the consumerism, and the gregariousness of the "market societies" we so paradoxically and falsely call "individualist." The synchronization of the *I* as flux is the dissolving of the possibility of exception and the time of the *I*'s deception as much as the *We*'s, both of which are erased in their confusion. This dis-individuation time, of which the affirmation "individualist" is the index of both frustration and negation, is an age in which the "question of being" evolves into *the question of malaise*, a new aspect of the question of *evil* through which the "question of being" is somehow "liquidated" by the to-come.

As we can see from a close reading of the *Symposium*,[22] there is no love without exception; love is, in fact, a state of exception. Eros is this state. It is because Orpheus is in this state that we must forgive him. Malaise in any civilization means

> [directed] toward the outside . . . , the ego seems to maintain clear and sharp lines of demarcation. There is only one state—admittedly an unusual state, but not one that can be stigmatized as pathological—in which it does not do this. At the height of being in love the boundary between ego and object threatens to melt away.[23]

The sublimated desire of this state gives rise to the *We*; it projects the always-desirable possibility of such a state, even in the name of "the love of knowledge" that Hegel wanted to "deposit"[24]—a knowledge that always makes its initial judgment according to the *beauty* of a demonstration.

> The love which founded the family continues to operate in civilization . . . ; it continues to carry on its function of binding together considerable numbers of people . . . in a more intensive fashion than can be effected through the interest of work in common (CD, 57),

but that is not enough to constitute a true process of adoption. Therefore, "the careless way in which language uses the word "love" has its genetic justification." *Philia*[25] makes society itself desirable, its vanishing would be hellish. Archi-synchronic societies, in which moments of synchrony are no longer the exception, are less and less socialized; are individualists in the moral sense: the sense in which the moral sense makes them defective. But they are no longer *individuated*: they are in fact profoundly hostile to the individuation process, to all heterogeneity, to singularity, and to the exception. These are not societies of individuals and exceptions (which is always a diachrony in which all individuality is exceptional, a-synchronic), but rather societies of *hypermasses* and of deception. As we will see, they are not even societies of invention but mimetic and adaptive aggregations.[26]

"Understanding" is already—originarily—synchronization (of internal and external sense): the "social" presupposes synchronic metastabilization. Nonetheless, synchronizing the synthesis of understanding requires a diachronic intuitional diversity, in which social metastability contains moments of exception as the necessary default of any pure stability aiming to be pure synchrony. The identification of the *I* and of the individuation *process*, the narcissistic stabilization without which it could not be recognized, is the condition of both its *reflectivity* and its *sociality*, both requiring synchrony. Synchronization is always at work: no possible *We* nor *I* without it.

But what is the intimate connection between this necessary synchrony without which there can be no formation of stable human groupings, no *collective individuation*, and diachrony, the *time* of individuation within the horizon of what is sustained and ongoing (as the future of this maintenance, the perpetuation of a synchronic *We*)? And further, through what conditions could these tendencies, both synchronic and diachronic, no longer be subject to social expulsion in the form of a cancellation of the one *with* the other (i.e., the one *against* the other), through transductive counter-positioning, into the one *without* the other, in a destructive madness in which, once isolated from each other, their separated and thus unlimited expressions producing the same effects, in which *pure* synchrony reacts to *pure* diachrony, and vice versa.

Pure synchrony and pure diachrony amount to the same thing: nothing.

It is still far too early to explore this question of the *idiom*, the question of the diabolic and the symbolic. Suffice it to say that synchronization should be in *rhythm with* diachrony, not imposing itself in order to erase diachrony, which would amount to the fusion of the *I* into the *We*, and in fact the conjoint swallowing up of both *I* and *We* into what *Being and Time* calls the *One*—Heidegger himself founders at this very point; it is indeed a formidable problem.

The *I* and the *We* are different, and their *in-differentiation*, manifesting an ontology of *in*difference in which synchronization of their flux absorbs the *I* and the *We* itself, thereby destroys diachrony in a politically and economically hegemonic, totalizing, and totalitarian entropic fusion. The *We*, having become *One*, is without a future: a-personal, it no longer knows who it is nor that there are others; it no longer knows how to ask "*who?*" either for itself or for others, nor how to recognize, let alone adopt anyone or any event (*One* is ignorant of both hospitality and adversity), can no longer distinguish between a *who?* and a *what*.

"The desert grows," says Nietzsche, the philosopher of the future. But *this* desert, a kind of hell, this becoming through which "desertification" is now to be understood, has no future. Unfortunately, this certainly does not mean that it cannot last. The pebble on the moon that no longer has a future and the moon itself, like the pebble, has lasted for millions of years; desert-time in this sense is stupefying.

Throughout a far-too-rapid reading of Simondon, we have glimpsed the fact that the possibility of adoption depends on the fact that *I* and *We*

are inseparable processes of co-individuation, and that it is necessary always to progress from an identical force regarding psychic and collective individuation. We have just as clearly seen that it is the medium of the pre-individual already-there that makes co-individuation possible, and that this medium is the individuating (transformative) preservation of the living being through a becoming supported by permanent substrata—the tertiary retentions Simondon neglects just as much as Kant and Heidegger. Finally, the two facets of the individuation process within this co-individuating structure authorizing adoption through stable technical support from psychic *and* collective retention, in an age of culture industries in which this retention is the principal target of industrial control, have clearly become confused, leading to a loss of the individuation of consciousness as such and thus to the cancellation of the possibility of exceptions, to massive disappointment, and to an era of malaise in which, just as the worker has been deprived of individual technical potential by machine tools, the subject-conscious-of-objects has become a consumer-of-products deprived of all possibilities of participating in the process of defining, constructing, and implementing the retentional criteria for a life of the mind.

"*I Had a Dream.*"[27] The American Politics of Adoption. 1912

As different as they are, *I* and *We* can be projectively confused with each other, while they cannot *not* be projected into each other since they both consist of a flux contained within substrata "serving as the foundations of changeable determinations,"[28] and that are part of both. The flux of the *I*, like that of the *We*, is a projection whose phantasm is precisely to merge with what is both its condition and its difference.

Hollywood has become the capital of global schematism because cinema is the *technical* adoption of unifying representations and phantasms. The United States (quickly followed by the Soviet Union, fascist Italy, and Nazi Germany) discovered this earlier than other countries both because the United States needed to integrate a permanent influx of immigrants (including those it had imported as slaves and could thus "integrate") and because having been constructed out of "wild" (if not "virgin") country, from which it had eradicated the previous inhabitants, it could establish a unique connection with a completely new technology.

The role of cinema in American development was possible only because the *We* was formed *as* the *I*, as projection; but this means that the United States was and is constrained to stage itself as another country, thus making cinema *necessary* since America inherited no projective mechanisms that were *already there*, as Jean-Michel Frodon shows in his work on Martin Scorsese:[29]

> "The American director has always been more concerned with the forming of a fiction than with the unfolding of reality" (*Martin Scorsese's Voyage Through American Cinema*). The old French problematic of Méliès or Lumière was based on reason, but in fact this matter never comes up for "the American director": the unfolding of his reality *is* the formulation of a fiction. Because his American reality is a story to be constructed much more than an "already-there" to be registered (the already-there, as we must remember, having been destroyed precisely in order to give way to "American reality"). (PN, 106)

This framework—this territory or *land*—is one projection screen like any other. It is a staging device as phantasmagorical as cinema itself, no more nor less real, as the one thing that is always already-there: it is always territory inscribed with symbols lacking in the immense Indian plains there to conquer—symbols lacking in the conquerors but that are quite real to the inhabitants.

This particularly American connection to the land is probably something quite new in human history, as is also the enormous genocide begun by the Spanish Europeans, pursued by all European colonial countries, accompanied by slavery and the treatment of Blacks (but also Chinese and others), concluding in the American colonies and the eventual conquest of North America in its entirety. Frodon explains how cinema brings the reality of this genocide and its successive barbarities to the screen; the large numbers of state executions committed in the American system of capital punishment are its appalling persistence.

If a territorial projection screen that is initially absent in, then constructed over, the time of the construction of the United States, it is not the United States "itself" that forms the identificatory frame for the American *We* through the images on the cinema screen. The opposite is the case: the phantasmal national screen (as retentional space) is framed *by the cinematic* (Hollywoodesque) screen that precedes it.

Generally, the linking of ethnic or national forms of community to

time and space is determined by some territorial unity grounded in shared sensibility. The territory itself constitutes the first collective memory support (for the nomadic tribes within it as well) as birthplace and as the space in which one lived and lives, a space that one genuinely *inhabits* and on which one has left one's traces: the space *from which* all this is transmitted and the space *that* is transmitted, the space one inherits and bequeaths and across which a common past and an ancestral filiation (literally) grounding a shared sensibility can be transmitted as territorial privilege.

This privilege is greatly lessened in the United States: because America is the first genuinely immigrant country, not created only by colonization and slavery, industrial schematism has necessarily been the dominant form in Hollywood. The United States understood from its early days the power of the temporal audiovisual object, since it was early on confronted with the problem of adoption as no other nation had been, as de Tocqueville emphasizes:

> The emigrants who came at different periods to occupy the territory now covered by the American Union differed from each other in many respects; their aim was not the same, and they governed themselves on different principles.[30]

The cinematic operation of American "national projection" brought about the unification of these differences. Because it was *permanently* necessary to project the American "model" to newly arrived immigrants, as well as to the Southern states that, following the Civil War, had to be kept in the Union, the United States became the country born of cinema: an immense country still to be subdued but also the privileged inheritor of the English imperial thought for and within which Locke forged his political discourse,[31] the young American nation developed and adopted cinematic technique much more quickly than others.

A case in point: the global success of *Gone with the Wind* in 1939, sublimating the bloody disunion of North and South, mesmerized the gaze of the entire world on a particular image of America, one that will appear again resonantly in *A Streetcar Named Desire* and *America, America*: the uniquely American culture of adoption has in effect become simultaneously the interior and the exterior of American territory.

This politics of the image of the *We* is also a highly commercial politics of the image of the *I*-as-consumer, an image invented as a model by

America. First in the United States, and by today globally, "integration" occurs through consumption: such is the process of "Americanization." In 1912, an American senator announced what would become one of the major axioms of North American civilization in the twentieth century: "Trade follows films" (PN, 104).[32] Consciousness's general adoption of cinematic time makes this concept and its techniques formidable instruments of promotion, in fact *the* instruments for the promoting of the American lifestyle, and thus of economic, technological, industrial, political, and social products and models that are now "offered" to the world as a whole.

Cultural appropriation and transmission are always phenomena of adoption, even though this is generally concealed by phantasms of a communal origin. With virtually a single stroke the world has adopted Coca-Cola and Marlboro, Starbucks and Apple, has adulated Hollywood to the point of fixated adoration and been so profoundly influenced by it that by the 1960s Hollywood's America had become known as "the American way of life," a life model depending on adoption and offering itself up for adoption so powerfully that people worldwide have finally either eagerly sought to adopt it (at least in part) or constructed their futures in opposition to it—either way, that is, as a function of it and always in negotiation with it.

This worldwide cultural reach, without precedent in human history and with consequences that are both enormous and far from complete, has only been feasible because adoption is *the law* of transmission, within the context of the fact that inheritance of a "pure" past (one never hybridized by a multitude of foreign cultures) is never anything but a phantasm.

We should note here in passing—and will return to it later—that for Kant the "predisposition for humanity" is the uniting of the *necessary defaults* [*défauts qu'il faut*] emergent from our predisposition for grafting; that is, for adoption. This predisposition is also the condition of possibility for both the symbolic and the diabolic.

The legacy of a "pure past"—belief in a shared (phantasmagorical) past—is a necessary, even an inevitable phantasm, the generator of full and complete sovereignty and of absolute right: such is the assertion of a "cinematic nationality." As just such a necessary and inevitable phantasm, the *American* cinema has understood how both to satisfy it and divert or reverse it, through the mythology of the conquering of the American West and its complete effacing of history, including erasing the massacre

of the Indians[33] with which many children and adults across the world have identified. Put simply, long before money and the military American power has been Hollywood imagery, the capacity to produce new symbols as life models and behavioral programs through mastery of programming industries, globally. According to Frodon,

> films and television programs replace GI's. And instead of *costing* money they *bring* it in (a great deal of it: the audiovisual is, after the aeronautic, the second most profitable field on the American commercial balance-sheet). (PN, 209)

Mondovision. The July 21, 1969, Meeting

During the Cold War, this politics solidified and reinforced itself with the rise of television and through the exploitation of its specific strength, "live" transmission:

> Man has been filmed on the moon. . . . Certain images, the most fascinating, were captured by a shoulder-camera by Neil Armstrong, bouncing across the dusty terrain, choosing his shots, shaking or rocking its framing (sometimes making the image unreadable), following his colleague Buzz Aldrin's gestures, shooting the space module, taking account of the light direction, the frame's composition, re-framing the field like a professional (guided by the "directors" at the Houston Space Center who, through their control panels on Earth, from a great distance advised the lone man with a camera on his field). Television transmitted all these images in a fantastic "autoreferential suspense." It transmitted them in monovision. Continuously and "live." . . . It was July 21, 1969. On that day, the entire world was riveted to the little window for this global event. . . . Those present that night could see both the moon itself, in the sky, . . . and at the same time, nearby, on the phosphorescent screen, as if on huge and literally fantastic dimensions, the two astronauts, at the same precise instant. . . . To see the two images together and simultaneously. . . . To be here on Earth with mankind (and an extraordinary feeling of "communion" produced by the consciousness of a simultaneous vision, seen across the entire world, of these live images—we were all *identical* earthlings through the television we saw and that saw us), and at the same time to be down here, or rather up there, on another sphere![34]

Already elsewhere, and by tomorrow immersed in a future defined by the territorial expansion of the *We*. We must take the human

(American) adventure to "another sphere" that is initially unified by images sent back, so to speak, by "scouts" and then sent out by the market, i.e. "all earthlings through television," under the star-spangled banner of the United States. This unification through the image, and in this form, is something very new, a "literally fantastic *close-up*," but the role of this image—which is also a flag—is obviously not new in terms of the construction of the *We*:

> There was the invention of the close-up. But the stars of the Middle Ages or Louis XIV have no connection with Hitler or Nixon, whose images are quite different. Louis XIV's image was strictly to be found on money; it was the only image the people knew of him, and not many other images circulated widely, except for one or two saints. But the people could recognize Louis XIV at the time because they saw him every day on coins. (JG, 59)

Coins are a primary tertiary retention in the synchronization and signification process by which the West conquered the world, passing through Byzantium in a time of iconoclasm during which "the very concept of power" was at stake, as Marie-José Mondzain clearly shows.[35]

At the end of the twentieth century unification through image had become the centerpiece of a system that was as economico-political as it was geopolitical or technological, within the context of global commercial warfare, simultaneously bringing about

—as a global technical system of unified production through international technical norms, the globalization of the industrial division of labor for the production of consumer goods, and a mechanism of telecommunication resulting in widespread out-sourcing and tele-management, and

—as a global technical system of diffusion for the programming industries (principally American), the emergence of hyper-mass-markets in First World (i.e., solvent) countries.

These outcomes are possible because in the global economic war, in which market conquest has become a more significant factor than increased productivity, American culture has become the very industry condemned by Horkheimer and Adorno, and the full development of this economic sector has become a top priority. This strategy is frequently misunderstood by Europeans: in 1999 the European Commission devoted 0.06% of its budget to its Media Program—one-third of the support given to tobacco growers.

It is because adoption is the central issue of modernity, and because this issue has been raised in America as nowhere else, that the kinds of television discussed in Bourdieu's *On Television* exist, and that it goes on developing on the American model. Thus understood, "culture," certainly not limited to the French minister of culture's portfolio, consists of fabricating the Symbolic through the industrial organization of always-technical retentions. But culture in general is *originarily* industrializable, given that it is supported and constituted by technical substrata and techno-logies. But it constitutes the vital element, however polluted it might be, through which collective behavior is forged, behaviors conditioning the unity of the social body as well as its capacities of anticipation and its link to the future; that is, its desire *for* a future. The tendency toward the *hyper*industrialization that is clearly implied in digitization has become, culturally, the most pressing political issue; it is also a question of adoption in its widest sense as an industrial politics currently called the "information society."

Taken over by the market, separated from any single country (at the historical moment when the father can literally be replaced by biotechnology), industrialized culture is now being instrumentalized for the development of a new spirit—"modernity"—and is more modern than ever, as the American lifestyle in which logistical calculation has become completely hegemonic, solidified by the State's liquidation, incommensurably augmented by integrating digitalization with electronic calculation, transmission, and telecommunication devices, through which information and communication industries arrive at a state of cultural hyperindustrialization. Once in this state, the IP[36] network integrates the production of consumer goods (computer-integrated manufacturing, computer graphics, etc.), their promotion (new programming industries emerging from the integration of various technologies), and their dissemination (electronic commerce); television is thus transformed into a technical organ of tele-*action*,[37] an evolution through which the technical system is made genuinely imperial and global.

The *risk* inherent in this global industrial synchronization is the possibility of extending desire *as* desire for a future, thus interrupting the (any) unifier-to-come. The problem is knowing whether (or when) the industrial construction of the symbolic can become diabolic—if it is susceptible to giving rise to a catastrophic spiritual sickness in which symbols can be inverted into diabols.

The Terrifying Fragility of the Marvelous

The feeling is great, perhaps omnipresent, and perhaps false, though this is doubtful, that like the industrialization of culture this new age is the theater of the death of art, or at the very least that something is dead without which art can no longer exist, and that without art nothing much of value remains; this is no longer merely malaise. The feeling is great that this something has reached its end and given way to something else appallingly new, something appearing as the antithesis of that other "beginning" Blanchot calls the "appallingly old" by which to Bataille's eye Lascaux projects the image of an unalterable youth as the source of an eternal hope of renewal:

> Apparently, the chief concern in earliest days was—as still it is in archaic societies—to bring work and play, prohibition and transgression, the profane season and the riot of holiday, into a kind of delicate equilibrium within which contraries blend, play takes on the guise of work, and transgression contributes to affirming prohibition. We may propose as fairly certain that, in the strongest sense, transgression only begins to exist when art itself becomes manifest, and that the birth of art fairly closely coincided, in the Reindeer Age, with the tumultuous outbreak of play and festival announced by these cave-painting figures, vying with one another in energy and exuberance that attain fullest expression in the game of birth and death played on stone.[38]

The Lascaux images are of an immense *We*, much more comprehensive than the man walking on the moon. "We" still belong to them, even if forgetfully and as disinheritedly as *we* could be. The earth has maintained these images as carefully as though they were in a *crypt* for this *We*, as part of this *We*; they are still for *us*, still with us, maintaining the immense "now" that is art's presence; these paintings are indications of an immense future as much *for* us as *toward* us—vast, measureless.

This vastness, returning to us through our ability to look back at that *other time* that is all the more strangely ancient in that it appears marvelously and eternally innocent, like a promise of invulnerable youth, is also, however, the disturbing vastness of the *We* that Sophocles' chorus addresses in his *Antigone*. *We* (i.e., we) *are* the most disturbing, monstrous, terrifying—and "marvelous," as Heidegger-Khan, Hölderlin-Lacoue-Labarthe, Jean and Mayotte Bollock, and Paul Mazon respectively, translate *deinoteron*:[39]

Polla ta deina douden anthrōpon deinoteron pelei.[40]

The French translations of this line from *Antigone* include:

Multiple l'inquietant, rien cependant au-delà de l'homme, plus inquiétant, ne se soulève en s'élevant [Manifold are the disruptions, but nothing beyond man (that is) more disturbing rises up].[41]

or

Beaucoup est monstrueux. Rien cependant qui soit plus monstrueux que l'homme [Much is monstrous. But nothing is more monstrous than man].[42]

or

Combien de terreurs! Rien n'est plus terrifiant que l'homme! [How many terrors! Nothing is more terrifying than man!].[43]

or

Il est bien des merveilles en ce monde, il n'en est pas de plus grande que l'homme [There are many marvels in this world; none are greater than man].[44]

And *deinoteron* is also what is "unhoped-for," as Heraclitus and Françoise Delbary-Jacerme show,[45] since

Sophon ti to mechanoen
tekhnas uper elpis ekhon
tote men kakon allot ep esthlon eppei. (Ant., 364–66)

Mazon's translation:

maître d'un savoir dont les ingénieuses ressources (*mechanoen tekhnas*) [master of a knowledge of clever resources].

Heidegger-Kahn translate *sophon ti to mechanoen* [into French] as "*fabricateur par savoir-faire, il possède l'habileté* [skillful forger, he has the power]" (153),[46] Hölderlin-Lacoue-Labarthe as "*sage en quelque part, et maître du savoir-faire dans les arts* [in some ways wise, and master of skills in the arts]" (Höl, 47),

maître d'un savoir dont les ingénieuses ressources
dépassent toute espérance (*elpis*) . . .

> [master of a knowledge whose clever resources
> transcend all expectation (*elpis*) . . .] (Höl, 47);

the Bollacks translate *uper elpis ekhon* as "*conduit plus loin qu'il ne croit* [driven further than he thinks]" (JMB, 29), Hölderlin-Lacoue-Labarthe as "*plus qu'il ne peut espérer* [more than he could hope for]" (Höl, 47),

> *maître d'un savoir dont les ingénieuses ressources*
> *dépassent toute espérance,*
> *il peut prendre ensuite la route du mal tout comme du bien.*
> [master of a knowledge whose clever resources
> transcend all expectation,
> he can take the road of evil as well as of good.]

Hölderlin-Lacoue-Labarthe translate *tote men kakon allot ep esthlon eppei* as "*il va tantôt vers le pire, tantôt vers le bien* [sometimes he goes toward the worst, sometimes toward the best]" (Höl, 47).[47]

Perhaps we never really belong to this *We* "beginning" at Lascaux, in this *crypt* discovered only in the twentieth century, because *we* sense that having traversed the century's limit we are able to see it retrospectively, from the edge of the abyss between best and worst, an abyss that is so easy to cross. At Lascaux, we can see the birth of a *We*, its actual image, the separate domains of "art" and "culture" combined. In our time, a time of the *un*-differentiation of time itself and of the mobilization of all resources, we can no longer be certain of the separation about which Bataille writes that

> the bulk of historical and ethnological information shows *mankind at all times in agreement with us on this point*: for all known peoples, the realm of work lies in rival opposition to the realm of sexuality and of death. . . . Disruptive of the routine order of things essential to work, unassailable into the world of stable and distinct objects, that unpredictable part of life, now ebbing, now surging up again, had quickly to be set aside, fenced round and, depending upon circumstances, sometimes considered baneful, sometimes troublesome, sometimes sacred. There is, we see, no precise line that can be drawn between the sacred and the sexual. . . . This trouble-inspiring, disruptive domain, whose power over us is as supreme today as ever it was, to those distant observers' eyes seems to correspond to the domain of animal life—which is not submitted to work. When fascinated by what we see in the Lascaux cave, it is this domain's powers over us we are acknowledging. (GB, 33)

But as part of procreative and biotechnological modernity, where the

spaces of work and habitation are unclear interfaces of a confused network of exchanges in which all activity, having become merchandise, can and must become the function of a carefully calculated appreciation or depreciation, no "separate domain" can continue to exist.

Being "marvelous," those originary humans are perhaps *already* terrifying: already "masters of a knowledge whose clever resources transcend all expectations" who could "take the road of evil as well as of good"; perhaps this explains why "he" does not leave images of himself, as Bataille remarks: the only scene in the grotto in which a human appears schematizes him as a childlike outline next to which the realism of a magnificent bison overwhelms him, implying a "systematic effort to preserve man from the naturalism which when it was a question of representing animals achieved astonishing perfection" (GB, 117). This schematic image, the "man of the well," the first image of a featherless biped whose epiphylogenetic condition is dedicated to *rising up* toward the beautiful and the good, is *asleep*, as if he figures forth the terrifying *fragility* of the "marvelous":

> What then must have been the feeling of those first of men for whom these paintings, in which to be sure they took a pride similar to ours (although ours is so stupidly individual), had, evidently, an immense attraction—the irresistible attraction that is bound up with the revelation of the unexpected, the unhoped-for. (GB, 15)

Who? *We*?

Adoption and Invention. The Country Where Everything Is Possible. 1866–1776–1915

For Kant, fragility is human nature's first step toward evil. But it is also the fallibility of all human production(s) that can strike at human beings; indeed this fragility is perhaps even the original human trait: Epimetheus's default conjoins technical fallibility with moral and political fragility in one common exigency—the fragility of the *I* and the *We*, which is the law of their inadequation. Zeus orders Hermes to bring *aïdō* and *dikē* to mortals as remedies to the damage done by this divergence-within-convergence, in order to metastabilize this *dia*chronic disorder *as* the synchrony that must be guaranteed even while being left wide open.

In 1986, the United States made yet another attempt to showcase the

power of the American *We*, through the live global transmission of the space shuttle *Challenger*'s launch. But scientific technologies, like this techno-scientific artifact, the shuttle itself, situated originarily and apparently permanently between reality and (science) fiction, never function with absolute predictability: their implementation is not only cinematic, not *merely* imaginary. The shuttle exploded, of course, immediately following lift-off, before the horrified eyes of hundreds of millions of "terrestrials," and the "*Challenger accident*" provided the exemplary special case for a general one, as revived awareness of the effects of an event whose various elements Pierre Nora had analyzed at the time of the first moon launch.[48] So-called accidents can teach us many things, as the figure of Epimetheus shows. And they remind us that the first concern of the philosopher is also the most legitimate one: that confusing the real and the imaginary (*essence* and *image*, as Plato's metaphysical cave allegory, simultaneously so far from and so near to Lascaux, would have it) is *catastrophic* and must be condemned. Thinking as such *begins* here, providing criteria by which reality and imagination can be distinguished.

We think philosophically only when we ask the question concerning the establishment of this criteria. As a result, *not* to oppose perception and imagination, when faced with the deep and permanent temptation to do so, is nothing less than the destruction of the metaphysical par excellence. Demonstrating that this question is the very problematic center of the *Critique of Pure Reason*; that the reality/imagination opposition in Husserl's work, resulting in the fundamental nonconnection between primary and secondary retentions, ruins his entire project; that it finally prevents Heidegger from recognizing that tertiary retention is essential to *Weltgeschichtlichkeit*—none of this necessarily allows us to distinguish perception and imagination.

Everything is about distinction.

The real as constituted through the imaginary only coincides with it as the *I* and *We* of which it is nonetheless the very condition, and vice versa. These terms are in a transductive relationship, and no relation is possible between confused terms: any attempt to impose such a relationship will lead to serious accidents, perhaps even to plagues and locusts.

This distinction that is not an opposition also means, however, that the future is not within the real—within perception—and that the real has a future that it *is not*: the future is not in what (already) is, as Valéry clearly demonstrates following the disaster of the First World War, in some ways echoing Sophocles' thought:

> Man is the animal . . . that rises above all other animals through his . . . dreams . . . to which he tries tirelessly to subject nature. I mean that man is incessantly and necessarily opposed to *what is* in favor of *what is not*.
>
> Other living dreams adapt in balance with their environment.
>
> They are in the habit . . . of spontaneously breaking this balance. They do not experience the sting of the beast that is the enemy of the good and that commits us to confronting the worst.
>
> Man . . . contains what is necessary to be dissatisfied with what had satisfied him. He is at every moment something other than what he is. He does not form a *closed* system of needs, nor of the satisfaction of his needs. He draws from satisfaction some kind of excess of power that inverts his contentment. Only his body and his appetite are appeased, while deep down something agitates, torments, illuminates, orders, stings, secretly manipulates him. And this is the Mind, the Mind armed with its inescapable questions. . . .
>
> . . . He opposes past to present, future to past, possible to real, image to fact. He is simultaneously what advances and retreats, builds and destroys; he is chance and calculation; he is thus what is not, and the instrument of what is not. He is, in the end and above all, the mysterious author of his dreams.[49]

This spectacular being can only be projected in fiction, by real-izing the imagined, inventing it. And it must then be admitted once and for all that challenging fiction in the name of "truth" makes invention unthinkable: actual invention (i.e., perpetually moving reality) that is not merely dreamt up by philosophers who are themselves also their "inventions," their "mind-clouds," who *must be*—but who must be *critiqued*. Re-evaluating fiction does not mean re-evaluating truth; it means posing the question of truth *in* fiction, then challenging the bad fiction, fiction as falsehood, denouncing forgers and falsifiers.

How would it be possible not to read in Valéry's meditations on "the crisis of European mind," after the fact at least, a harbinger of what will be the extraordinary inventiveness of the "American dream": its strange capacity to organize the polemical encounter between the real and the possible, the present and the future, image and fact?

Europeans have not understood what "America" is, everything that is new in it, everything to learn from it, and everything that will never be European in it. Europe truly encountered America only when, in 1866, the Great Eastern laid a telegraphic cable on the Atlantic floor, linking Brest and New York by the first intercontinental telecommunications

line. Subsequently, Europe got to know the United States very well, through the course of the two world wars that clearly and radically altered the connection between North America and the rest of the world. The outcome of World War II was clearly the result of the mastery of transmission technologies that had already begun to play a large part in the trenches of World War I. The psychological war waged on that "second front" was a war of media, a technological war of cryptology and calculating machines by which England and the United States won the battle of the Atlantic, then beat Nazi Germany in producing the atom bomb. After the Liberation, with the implementation of the Marshall Plan in 1948, the United States launched a politics of the systematic diffusion of American culture. The American financing of national reconstruction was specifically aimed at the widest possible diffusion of American cinema, among other things, in those countries.

During the 1930s and 1940s America used cinema, as it continues to do today, as an instrument of psychological, ideological, and commercial warfare. In this war of images, in the course of which America was also struggling against German Nazism and then Soviet communism, its goal was to ensure that the entire world would adopt the *American Way of Life*. Adopting this lifestyle meant behavior modification and revised representations, consumption habits, and relational models, making the entire world "vibrate" in expectation of a carefully structured story (in numerous installments), from *Gone with the Wind* to *Apollo 13* by way of Chaplin's Little Tramp, the western, Ronald Reagan, and *Dances with Wolves*: the *adventures* of American cinema. Beginning with Hollywood images, then with multi-episode television series, America has become *the* modern country par excellence, and the dream of all emigrants.

In fact, what the Industrial Revolution had begun in Europe in the early nineteenth century, America inherited with extraordinary force in the twentieth. After World War II, it emerged as the country in which anything was possible, in which that unprecedented upheaval of industrialization capable of being developed as a process of permanent innovation had found its true home, its true fatherland. America still appears to be the country in which any future can be accomplished—even if this future has now somehow begun to appear to much of the rest of the world as devoid of future—infernal, even monstrous. This is perhaps also something new. In the context of a globalization become reality, built on the digital integration of information and communication technologies,

the United States appears to be the lone global superpower—but also, and increasingly, an intrinsically *imperial* power, dominating and menacing.

Europe has attempted to follow along the path of its more traditional glory, still believing this to be a shared glory ("Western": "we Westerners"). But this path itself of course consists of mnemotechnologies: this is what the functionaries of our little peninsula have forgotten: we certainly know that in its own time of supremacy Europe pursued a comparable politics. But now, what chance does "Old Europe" still have of continuing to maintain itself as a true power, as a force of initiative? Such a question, if it is ever still seriously posed,[50] must first respond to this other question: what is America's true force?

The United States created the image of modernity through Chaplin, *Gone with the Wind*, and Mickey just as much as through high technology and Wall Street skyscrapers. American history is the history of the appropriation of mnemotechnology and the mastery of industrial systems of retention, but just as much of technologies of the imaginary, and of calculation and logistics. And it is also, more recently, that of the long industrial, systematic, and rationalized organization of their convergence into a singular technical system, integrally digital. This politics of technology is indissociable from the politics of adoption, which is then the basis for a politics of invention and artistic creation.

The culture of adoption, as the American story's leaven, has created an incomparable capacity to attract and incorporate the foreign. The greatest European filmmakers have all worked in Hollywood (not to mention the scientists, artists, writers, and scholars of all disciplines and nationalities "produced" by the United States in the same way that Hollywood produces films). Even when these cinéastes were in open conflict with the American government, America knew how to turn them into the most representative illustrations of its "image." When Chaplin, pursued by McCarthyism, filmed *A King in New York* and denounced America's duplicity, he nonetheless worked to celebrate American greatness, which had given him the means to become one of world's greatest artists, precisely in disseminating to the world the entire American adventure, through him.

The question of America's force, the question Europe does not know how to ask, is one of adoption and technics, a connection America has always known how to ask—i.e., how to exploit. What *produces* American

force is its true politics of mnemotechnological development, a politics of adoption as it has been employed for decades in a market culture in all its forms: intellectual, artistic, scientific, diplomatic, and, especially, commercial; it is a culture of intelligent becoming that is seriously missing—in default—in Europe: an adoption process is entirely different from a set of guidelines.

Adoption leads to invention because the need to adopt a past that was never lived is indissociable from the necessity to adopt techniques, the ephemeral objects from which commerce is constructed and through which *I*'s and *We*'s are forged into a fundamental concurrence of what Kant calls "insociable sociability" and that Hesiod calls *eris*—emulation, discord, rivalry. This exigency, which also constrained Zeus to send Hermes to the mortal world to bring them *dikē* and *aïdō*, was present at the very birth of a United States that was confronted by an initial completely original and exceptionally powerful *dis*union, and yet that has resulted in an unequaled capacity for invention.

American inventiveness, made possible by the invention of America itself through its cinema (and through the invention of *cinema* itself), as a dream technology, began much earlier: in 1776. It was present in some form in the Declaration of Independence. During Virginia's bicentenary celebration of the Declaration's signing, Jacques Derrida analyzed Thomas Jefferson's fabulary discourse in this way:

> One cannot decide—and that's the interesting thing and the coup of force of any declarative act—whether independence is stated or produced by this declaration [the declaration written by Jefferson]. . . . Is it that the good people have already freed themselves in fact and are only stating the fact of their emancipation through this declaration? Or is it rather that they free themselves at the instant of and by the signature of this declaration? . . . This obscurity, this undecidability between, let's say, a performative structure and a constative structure, is required in order to produce the sought-after effect. It is essential to the very positing or position of a right as such . . . the "we" of the declaration speaks "in the name of the people."
>
> But this "people" does not exist. *They* do not exist as an entity, *it* does not exist before this declaration, not *as such*.[51]

Nor *after* it. This "people," this *We*, is permanently *becoming*.

De Tocqueville emphasizes the extreme rarity, indeed the singularity, of the opportunity to observe a country being born. And what do

we actually see? That adoption produces the invention of a *We* that is no more real than the *I*, but projected and confabulated according to a logic we have already seen originarily at work in Kant's understanding: through *delegation*, in the case of the United States through representatives speaking *in the name of the (good) people*, charged with choosing the instructive words of a *We* projected and confabulated *as law* (and in the name of God; that is—as we will see in *Symbols and Diabols*—in the name of the absolute past and the absolute future). American inventiveness, beginning in 1776 with the *We* announced by Jefferson's *I* in the Declaration, is already cinematic: illusionistic, delusionistic—fakery. It begins in an illusion, like Epimetheus's default. This illusion, this "cinema" constituting the American nation (in fact instituting all institutions, though in fact we can see it so clearly in the American case because it exists there in the absence of *anything* actually present, as Frodon shows), lays the groundwork for the subsequent supremacy of the American cinematographic industry, from *Birth of a Nation* through *Gone with the Wind*, *A Streetcar Named Desire*, *America, America*, etc.

And Frodon indicates that this *We* is finally only forged during the Civil War, in what Kant calls "discord":[52]

> The formulation of a particular fiction is clearly at work even in the first great American film, which is nearly *too* symbolically entitled *Birth of a Nation* (1915). . . . *Birth of a Nation* is a title that is just as appropriate as it is approximate: historically, the American nation was born in 1776, with the Declaration of Independence, while the historical framework of the film is the Civil War and its direct effects. But just as from the viewpoint of the country's founding myths it is the Civil War that produces the nation as representation, this internal conflict and its aftermath will set the stage for America's launching. (PN, 135)

The American cinematographic industry has seen an ever-livelier inventiveness, and its domination has had repercussions on television channels across the world ever since. But the impact of television was limited by the technological constraints of its modes of diffusion until the end of the twentieth century: since most television programs were of American origin their scenarios remain national.

This barrier has been overcome through digitization: the "Americanization" of the world that Sinclair spoke about has now truly begun. The supremacy of the American programming industries can now be replayed

on the always-expanding IP network—witness the recent merger of America Online and Time Warner—resulting in what we have called the "integral"—and "integrating"—"digital" of tele-action, a new instrument of adoption that has already achieved a previously unequaled power.

It is doubtful, however, that this formidable American intelligence of *becoming* is the true bearer of the *future*.

Calendarity and Cardinality in the Age of the "Broadcast." July 12, 1998

In 1939, 45% of the French listened to radio. "Broadcasting," the name of the American systems of programming diffusion through radio stations and television channels, developed chiefly during what are known as their "glory years," during which the current models of consumption were defined and dispersed. During the 1960s, religious ceremonies, state festivals, places of worship, and family gatherings began to use radio and television to announce their events, their schedules; the "time slots" set up for them by program directors came to be known as the "program grid." These slots were and are meeting times whose principal forms, television "news," beam worldwide current events into living rooms without a break, transforming the most important global events into the "tele-visual," from the crowning of Queen Elizabeth of Great Britain in 1953 to the World Cup Final (won by France) on July 12, 1998, in front of hundreds of millions of spectators. Several days later, the French press reported that the country had "regained confidence in itself."

The *broadcast* sends a continuous flux of programming toward great masses of listeners and viewers as temporal audiovisual objects occupying a new kind of time and a new age of calendarity. In the course of the twentieth century, programming industries completely reconfigured both time and space, without which no human communication, no *We*, could be established or continue to exist:

—*calendarity*, time, spanning the life of a society, inscribing "cosmic rhythms" in it through symbolic rituals: it is the calendar as such, but also the entire breadth of unique local events that make up the programmatics of *behavior*, social synchronicities and the diachronic local manifestations, and

—*cardinality*, space, tracing out actual territorial limits and boundaries, circumscribing social and cultural representations and forming *systems of orientation* and *navigational instruments* in space as well as time (from the maritime map to the thesaurus and the index by way of the schoolbook and even proper names; of streets and cities as well as people themselves, who are cardinal as well as calendrical).

Calendarity and cardinality determine and manifest all collective movement, including history and geography. But in less than fifty years, television (in an environment created by radio) has absorbed all local calendarities and cardinalities, integrating them into programming grids through which it has segmented the public, *targeted* it by establishing time slots and "meeting times," and established and defined program *formats* (twenty-six minutes, fifty-two minutes, etc.). The very nature of these events and, in point of fact, the very conditions through which they *become* events have been profoundly modified.[53]

This change has resulted from a process of mass adoption. The same program can be seen by millions of spectators at the same moment; millions of consciousnesses can be immersed simultaneously in the same flux of temporal objects, subjected to the same effects of verisimilitude and adoption. The broadcast is a product of the industrial manufacture of "live" temporal objects (even when they are not "live") that are designated for a mass consciousness and for the synchronization of its flux. The infrastructure through which the culture industries have been disseminated have been in place since the dawn of the radio age (1923).

Archi-flux and Program Grids

We have already seen that if film, as a succession of *momentary* photograms, is an extension of photography, because it incorporates within it all the effects of the actual photography it then animates, and because it dissolves the immobility of twenty-four frames per second into the temporal flux of the spectator's consciousness,[54] television is no less also an extension of cinema. And as a technology of transmission via radiodiffusion, it adds to the co-inciding of the two defining aspects of cinema, cardinality and calendarity, the co-inciding of "direct," "live" (the instant of the image's capture by the camera combined with its reception by the tele-spectator on the television screen) and the temporal co-incidence of the time of great masses of consciousnesses watching the same program,

synchronized in isolation, in their own homes and without the ability to see themselves as being part of and belonging to the same mass consciousness, being in the presence of the same programming sequences. This structure has become the new global retentional milieu for the psychosocial individuation of the *I* within the *We*. How could we *not* be affected as much as we are?

At the conclusion of *Technics and Time, 2* I addressed the fact that as part of the industrial synthesis of retentional finitude we must add a *prosthetic* synthesis to this synthesis of consciousness. This is now even more true of "current events," and of all programming selections and variety shows: television opens up the possibility for the live transmission of everything captured by the video camera lens and the *videographic* past as it becomes the *immediate* past, a "just-past," for the first time in history—and this is a just-past that is always passing *now*, co-incident with both the *now* of consciousness as synthesis of apprehension and primary retention of what appears to be happening: it is what is immediately happening to "us."

This co-incidence between capture and reception—the techno-industrial condition for the confusion between the individuation of *I* and *We*, i.e., of their both being swallowed up into a *One* that has become a commodity, commodified consciousness-time always for sale in the advertising market and thus eliminating what in cinema is part of the time of post-production. But in fact television does not actually eliminate this time: it *conceals* it, making market-time co-incide with two other coincidences: it is the time of video recording, by which millions of consciousnesses can synchronize the flow of their mass consciousness's unfolding, homogenizing their secondary retentions and submitting them to industrial criteria of tertiary selection that are themselves uniformly recorded and implemented by the many various channels (resulting from the common audience calculations—and no channel can have any other criterion).

As I pointed out in *Technics and Time, 2*, being transmitted live, television news is an immediate past that makes the present *pass by*, thus constituting an already-there that is short-circuiting everything that had been part of the filters through which the already-there had established its authority. If the criteria of primary retention within the *now* of a temporal object, like selection, had been preliminarily cleared by the previous temporalizations' becoming secondary memories in an industrial

synthesis of retentional finitude (i.e., in the industrialization of the production of tertiary retentions, which is also a synthetic production, in the prosthetic sense, of the synthesis of consciousness),[55] then this selectivity is short-circuited by the immediacy of those tertiary retentions that absolutely coincide because of the configuration of the temporal ecstasy characteristic of analogico-digital syntheses, with primary and secondary retentions. How would it be possible to distinguish, in fact, between primary memory (the "just-past") and "consciousness of image" (in the Husserlian sense), within temporal objects in their guise as television news, since what happens does so immediately *through* consciousness of image?[56]

The lived experience of television news is itself a temporal object irreducible to image-consciousness, while the present is only present *as* a temporal object (listening to the radio, watching television). In this "collective present," of *We*-consciousness, the just-past, this im-mediate passing that is immediately past, is *already* formed as such, *as* the already-there and with all its force—even as *my* already-there, one that I have not lived even though in some sense I *have* lived it as a "supplement," as the already-there of "*we other* spectators" who are, however, not *actually* "ours," not part of a "we." If a distinction between primary and tertiary memories remains possible, even indispensable (without those being opposites), here it becomes absolutely formal and empty.[57]

As the technique for (1) the diffusion of images captured and recorded live, then (2) passed through the techniques of the tele-cinema, then (3) videographically recorded using a VCR, DVD, etc., and (4) subsequently other digital devices that have brought the equivalent of post-production into the televisual process, these four televisual elements compose a global programming system for a profusion of temporal objects, all inscribed on the program grid that organizes these programmed series and programming selections through a system that produces an *archi-flux* in which the flow of programs is linked together; this archi-flux is what we now call a *channel*. As a programming industry, the "broadcast" structures a global calendarity under second-by-second control, based on a time-code and a general economy of the social time of synchronized consciousnesses in which time's *price* is calculated according to criteria such that on a given channel a minute of advertising is worth one or two thousand Euros at 3:00 p.m., and fifty thousand Euros at 8:30 p.m. The establishment of distinct time slots allows not only for the distinguishing

of demographics but (thereby) for differing price scales per second of ad time—that is, per second *per consciousness*, all established, ratified, and sanctioned by television ratings services. This time economy is a war between media outlets for the limited time the spectator can consecrate to them; this mad exploitation of consciousness-time, however, highlights problems of exhaustion and pollution that are the equivalent of those involved in the unfettered exploitation of the earth's natural resources.

If Kantian analysis succeeds in laying out a distinction among the three syntheses that as fundamental operations of the transcendental imagination call for the three forms of retention we have defined in this analysis of Husserl, then the symbolic efficacy of cinema and television is possible only to the extent that it confronts and accounts for certain structures themselves made possible through the exteriorization (in Leroi-Gourhan's sense) of analogic technology. Consequently, as either cinema or television, exteriorization can intervene in the flux of both individual and collective consciousness in order to condition its schematics. The coincidence of multiple flux does not mean that all these consciousnesses see or live the same thing(s); audiovisual programming does not program the time of consciousness in the sense that it determines it; this programming is, rather, a conditioning. But this conditioning is enormously effective and precisely qualified for applied mathematical calculation and techniques of operational research, and advertisers have already begun to purchase the very channels these consciousnesses consult and onto which they project themselves in order to adopt new behaviors.

The organization of television channels formed through the mass social connections in which programs are products functioning by the same criteria as their audiences reinforces these retentional criteria, rendering them ever more common to a mass consciousness. At this point entropy occurs, which explains television's unique symbolic effectiveness even when its programs are of the poorest quality—as well as the stunning cinemato-graphics (as reality effect, protentional nature, etc.) of the close-up, of montage, of a well-shot scene. Although select programming elements—news dispatches; informational programming; films; political, literary, and scientific broadcasts; variety shows; documentaries; etc.—are subjected to more or less the same selection criteria and attract enormous mass audiences, they appear as homogeneous and standardized devices of tertiary retention determining the play of secondary retentions that in their turn, as we have already seen, condition tertiary retentions.

This is in the most general sense a kind of expanded Kuleshov Effect, working here at the level of an archi-flux of programs and thus of consciousnesses themselves, which can therefore programmatically determine what succeeding consciousnesses receive, having been determined by preceding programs. The profusion of program grids imitates itself: if one channel wants to increase its market share by pursuing its competitors' mass-consciousness market (the strategic goal of all channels' programming grids), it must absorb at least a part of the retentional criteria of these competitors, especially those criteria that have been adopted by the mass of consciousness-time the competitor can claim, and to synchronize its program times with the public's general time frame in order to have even a chance of capturing some of that audience during program changes. The great diversity of channels, leading to a hypersegmentation of the viewing public, is less a disruptive factor in producing retentional entropy than an augmentation of the precision by which a particular audience is targeted through changes in the system, even if this new organization obviously visibly changes the conditions of synchronization.

1997: The Turning Point. The Age of Cultural Hyperindustrialization. From Transmitter to Server

The audiovisual "is not a product like any other," as Jack Lang said when he was Minister of Culture, not only because it is "cultural" and re-awakens us to artistic creation and "spiritual works" but also because as programmatic and as temporal object it is the most effective and therefore the primary weapon in the global commercial war.[58] In the sense that digital technologies now enable the audiovisual to be broadcast across global telecommunications networks that are now interoperable through IP technology, the tele-visual receiver having become the tele-*action* receiver, the unique power of the audiovisual, within the adoption process initiated in and by the Industrial Revolution, "modernity" has been incommensurably reinforced—at the price of a subtle evolution in the very nature of programs themselves, their temporal objects, and their mechanisms for the production and diffusion of tertiary retentions.

In the analog system for broadcasting televisual images that was inspired by the model of the 1920s radio transmitter, the dissemination of an image had to pass through a system of network relays that were

heavy and costly and that limited the number of available unidirectional channels. Today, the conjunction of the MPEG standard (of compressed images and sounds) with TCP-IP (interoperability of digital networks) is moving toward a diffuse network of protean multichannel, agile, "interactive" audiovisual programs utilizing telephone lines and then wireless technology to send images as easily to televisions as to computers, all multiplying around the archi-flux of a large group of possibilities whose diversity of uses and services we are still struggling to imagine, but about which there is no doubt that we are facing a radical transformation in the social time of the masses that had been controlled by television.

While broadcast networks are still necessarily national for technical and performance-transmission reasons, the digital telephone network is global. The *integral digitalization* that gave rise to the audiovisual, along with the profusion of programming industries (cameras, recording, networks, and digital television), will thus continue to be concretized through the televisual broadcasting's globalization and the various services it produces; the image itself will play an increasingly important role, expanding into all sorts of utility activities. The central organs of tele-action will no longer be the current electronic devices in the home; they will become tools for increasingly nomadic work, domestic and professional accessories with multiple functions.

This global infrastructure of interoperable networks, of which UMTS[59] frequencies for mobile telephonics and XDSL[60] hardline telephone networks are currently but the first steps, are rapidly transforming the question of adoption into the global geopolitical challenge par excellence. Adoption, as discussed here, means

1. The hidden process of individuation of human groups;
2. Acquisition (in the modern era) of consumer goods seen as a life model;
3. The typical phenomenon (in the contemporary era) connecting us to the time-consciousness of an audiovisual temporal object and the embracing of flux.

The integration of audiovisual networks with digital telecommunications that are already directly connected to the disseminated programs and mechanisms of promotional advertising and commercial transaction services[61] will develop these three dimensions of adoption, completely synchronizing them into a single reality. The geopolitics of adoption will be the decisive element in the economico-political struggle to come,

within a context emerging from the last decade of the twentieth century, which saw the worldwide installation of the IP network: the number of servers it serves has gone from 26 in 1992 to 130 in 1993, one million in 1997, seven million in 1999, etc. But the number of computers in the world remains relatively small compared to the number of televisions, and this is the basis of the new American strategy. While approximately 50% of American households have potential access to the IP network, and only 10–20% of European households (according to the specific country) are equipped with a computer, by the turn of the century over a billion television sets were spread around the planet.

Herbert Schiller cites an article from the *Wall Street Journal* in 1997 in which Irving Kristol, a zealous Republican, declares that "one of these days, the American people are going to awaken to the fact that we have become an imperial nation. . . . The Europeans are dependent nations, though they have a very large measure of local autonomy. . . . Our missionaries live in Hollywood."[62] In the same year, David Rothkopf, director general of Kissinger Associates, published an essay in *Foreign Policy* entitled "In Praise of Cultural Imperialism?" in which he states that "for the United States, a central objective of an Information Age foreign policy must be to win the battle of the world's information flows, dominating the airwaves as Great Britain once ruled the seas" (HS). This battle of "information flows," already anticipated by Zbigniew Brzezinski in 1969,[63] is actually a battle of *models* that will form the basis of new global cardinalities and calendarities through which technologies will converge, a battle among information societies. But on April 3, 1997, just as the world was beginning to acknowledge the "internet phenomenon" (the one-million-user mark had just been reached), the American Federal Communications Commission (FCC), the equivalent of France's Conseil supérieur de l'audiovisuel (CSA) and the Agence de régulation des télécommunications, announced the list of analog frequencies available for television broadcast after 2006. In addition, it instructed 3800 American television stations to prepare to convert to "all digital" broadcasting by 2003. The disappearance of the analog broadcast system that had been installed seventy-five years earlier and whose core element was the transmitter, the television set, was thus programmed to last for fewer than ten more years.[64]

The analog system then in place, already by the late 1990s in competition with satellite transmission, then faced replacement by integrally

digital transmission based on IP and MPEG, in which the server takes the place of the transmitter (*Technics and Time, 4* examines the results). For the moment, suffice it to say that the digital system has rapidly overtaken the dissemination of temporal objects of entirely new kinds, hypermedia that are delinearizable and navigable simply because they are "clickable" in the new digital ether. In the end, the cultural industries as a whole have deployed their new products around temporal objects such as these, and television's current calendarity, which has received its "rhythm" through a channeled archi-flux that was built into program grids, has already and will continue to be profoundly transformed by them. Through flux and emerging out of it, the digital industries will be given access to *stock*, in every sense of the word; they will continue to integrate it into a system of spatial and temporal devices as articulations of temporal grids and as the navigational instruments required to orient them and to assemble them into vast image banks through which a profound evolution in the uses and the use-value of television will take place, one in which time will be used for the elaboration and adoption of new models determined by those image banks.

The systematizing of "meta-objects" and the "temporal archi-flux" has remained, up to the present, essentially national because analog telediffusion is still (though less and less so) largely territorial, i.e., geographically limited. Since increased digitalization erases this techno-geographic limitation,[65] Kristol's and Rothkopf's statements must be taken very seriously, and as Jacques Blamont emphasizes, the aim of American geopolitics is increasingly to take complete control of telecommunications, most important, of satellite navigation systems—of cardinality itself.[66]

A positive development in this trajectory has been the creation of the Internet Corporation for Assigned Names and Numbers (ICANN), the private agency to which the American government has delegated the management of the IP network, the attribution of domain names and electronic addresses, whose governing board was actually elected on the internet and therefore not subject to all political and constitutional laws; this has resulted in a geopolitical precedent of extreme importance.

Creation of ICANN is—potentially—all the more radical because of the remarkable *in*attention to such matters by European governments. Faced with numerous dangers and risks, the European political class and high public functionaries in Europe have been stripped, catastrophically, of cultural and strategic intelligence, intoxicated by the market myth that

"the global market" decides strategic options, while it is obvious that the United States controls them, including support for all public investments (including by the American military), which other "market actors" can then share. In this regard, once again, the remark made by Jean-François Abramatic, a member of ICANN, is especially salient:

> American governmental finance has allowed for the deployment of the internet in academic spaces, creating a nascent infrastructure and, above all, a generation of well-trained Americans that is without any European equivalent today. It is on the basis of this infrastructure, of these capabilities . . . and through an application conceived in Europe, the Web, that the American economy has researched new frontiers in the development of new markets. If Europe and France content themselves with playing by the rules unique to the market in the name of deregulation, the American advantage is such that the gap must continue to widen in favor of new participants (MCI Worldcom, Cisco, AOL/Netscape, Yahoo, etc.) or re-structured former leaders (Microsoft, Sun, IBM, etc.).
>
> Today, the operational priority given to the implementation of deregulation of all telecommunications constitutes (in France) places a brake on internet deployment, for example, in the development of local loops (second-line charges, cable use, expansion of ADSL, etc.).[67]

After the failure of the Organisation de coopération et de développement économiques (OCDE), which pressured for a multilateral accord on investments (Accord multilatéral sur l'investments, AMI) whose authority would have allowed any international investor to buy into any audiovisual corporation from any country on earth, the very existence of public and national audiovisual sectors has been perpetually debated by the Organisation mondiale du commerce (OMC) and the European Commission, then framed (in France) by demagogic socialist deputies who did not hesitate to call for the cancellation of the audiovisual tax,[68] even though it was far less than Germany's and England's. But besides the obviously major fact that the economic expansion of any country will henceforth depend primarily on the vitality of its programming industries, a fact that will only increasingly be the case as technologies converge, it is less and less possible to separate the industrial future of the digital audiovisual from the future of education, since the enormous global marketplace will from now on be the major target of development for new services, like those that emerged at the international conference in Vancouver in May 2000, and like those that are the object of the Accord général sur le

commerce des services (AGCS) [the General Agreements on Trade and Services], currently being negotiated in the OMC.

The programming industries, now indissociable from information-processing technologies and telecommunications services, have also become a key element of economic development and of international influence, of social connectivity and thus of the future of national groups. In the age of the hyperindustrialization of culture, the great challenge for Europe—and the rest of the world—is clear: it grows out of the traditional quality of non-American programming industries and, simultaneously, the general conditions of production and transmission of knowledge, of "new commerce," and the global future of the adoption process.

§ 4 The Malaise of Our Educational Institutions

The Global Mnemotechnical System

Human beings disappear; their histories remain. This is a huge difference from all other living beings. Among the various traces humans leave behind, some are products with entirely different ends from any "conversation with memory": a clay pot, for example, is not a tool made to transmit memory. But it does so, spontaneously, nonetheless, which is why archaeologists consult it in their research: pots, etc., are often the only witnesses to the most ancient cultural *episodes*. Other traces—other objects—*are* however dedicated to memory transmission, traces such as writing, photographs, phonograph recordings, or the cinematographic images. With these last, the production and transmission of traces—retentions— have become an industry.

I have been asserting throughout this discussion that *technics* is before all else a memory support, what I have called epiphylogenesis. But not all technics is a *mnemo*-technique: the first mnemotechnical systems appeared, it seems, after the Neolithic era, eventually to become the various forms of writing we know and use today. This means that technical systems preceded mnemotechnical systems, and that the latter must not be confused with the former. All civilization, as such, is constructed through a technical system defined as stabilizations—stages—of technical evolution occurring through and as the result of previous stages, a dominant technology appropriate for this system, the set of techniques of which the system consists and through which it maintains interdependent relations,

and the ability of the system to change when the dominant technology around which it is constructed changes.[1]

A technical system thus understood always contains an element of "broadcasting" and a duration. Analyzing it shows that with time its extension is tendentiously, increasingly vast, even while its duration is shorter and shorter. It is crisscrossed by various evolutive tendencies and is involved in regular crises that introduce ruptures into the system. In these crisis periods the system evolves very rapidly, provoking "maladjustments" with other social systems—law, economy, education, religion, political representation, etc. Stability (always relative: always *meta*stable) returns when these "other systems" have *adopted* the new technical system.

The industrial technical system whose first elements appear in England at the end of the eighteenth century is now global—and yet has now entered into an age of permanent innovation that can be seen as functionally *un*stable. Its area cannot be extended further except by going beyond the solar system, and its duration cannot be reduced: properly speaking, technological stability no longer exists. We can no longer speak of Asian, European, or American technical systems: a single global mechanism of regional specialization has arrived, organizing the industrial division of labor as a function of geographic opportunities or political contingencies defined from the perspective of investors. In large part these information and communication technologies have brought about this evolution through the possibility that they contribute to the organization of automatization, remote control of production and distribution, the international circulation of capital in real time, and the opening up of intercontinental markets for hypermasses of consumers.

This is all well known. It has been, however, less well noted that the consequence of this inscription of information technologies at the heart of industry would also produce an unprecedented rupture in the history of technical systems since their origin, insofar as up to the present, mnemotechnologies have always constituted a unique domain of technical systems that have succeeded one another through time.

In effect, while technical systems have followed on each other in transforming materials, the Greek system, then that of the Romans and their successors (i.e., other systems co-existing in other regions during the same ages, most notably those qualifying as "sealed systems"), through the Middle Ages and the Neoclassical up to the Industrial Revolution, the principal mechanism of tertiary retention on which

the theologico-political power of the clerics rested, alphabetic writing, was the basis of a mnemotechnical system that was stable for more than twenty-five centuries, though it witnessed a great variety of diverse periods—followed by the arrival of printing, whose profound consequences we will examine later, and whose relation to knowledge, skills, and the general principles and forms of linguistic reproduction have not significantly changed since.

Yet this independence of the *mnemo*technical relative to systems of technical production is no longer the case today: the new global technical system has become a *global mnemotechnical system* in which technical and mnemotechnical systems have fused and have become, at the same time, global. This transformation began in the nineteenth century, which is thus a period of transition, with the appearance of the first technologies of communication, information, and signal processing. In the twentieth century, the industries of communication and information became the very heart of technical systems for the production of material goods. What I have described as the "convergence" of informatic, audiovisual, and telecommunications technologies would thus also be that of technical systems for the transformation of both matter and technologies of memorization.

But this is not all. In the nineteenth century, the life expectancy of mnemotechnical systems could exceed that of technical systems because theologico-political powers increased through control of retentional mechanisms. This began to change with the Industrial Revolution out of which it became possible to think the possibility of the death of God (of theo-metaphysics). If history can and must be analyzed essentially as the connection between the evolution of technical systems, on the one hand, and the evolution of other social systems on the other hand, i.e., as the problem of "adjustment," then an analysis of mnemotechniques would clearly show that today technical systems always overdetermine the conditions of this adjustment—that is, of the process of adoption: as a technique of communication, they control the relationships between individuals and collectivities, and inside of these collectivities, between and among the systems organizing them.

The global technical system has become essentially a mnemotechnical system of industrial production of tertiary retentions, and thus of the retentional selection criteria for the flux of consciousnesses inscribed in the process of adoption. That means that the conditions of adjustment

are also going through an immense reversal, as can clearly be seen in the initial consequences (for example, fiscal or judiciary) of the IP network's development, in which we can see not only how a technical system can completely disrupt other socio-technical systems within which it is deployed, which is a classic phenomenon though in this case of exceptional magnitude, but also how it constitutes in itself a kind of competitor for these social systems while it still pretends to be such a system itself; this is a completely new phenomenon, and a direct consequence of the fusion of technical with the mnemotechnical systems, and thus of the recent "election" of the ICANN authorities regulating this global network by users themselves (by some of them, at least).

This interoperable network, now the driving force of digital audiovisual programming industries, is the decisive element in the globalization of the technical system, and through it mnemotechnology becomes the very heart of the system, integrating calendarity and cardinality, the primordial societal links. Calendarity and cardinality, which form the retentional systems in turn forming the links between space and time, are never separable from questions of religion, spirituality, and metaphysics: they inevitably revert to questions of origin and end, limits and borders, i.e., to the most profound perspectives of all kinds of projection devices. But today cardinality and calendarity have been deeply disturbed. Day and night themselves have become confused by the artificial light of the electric bulb and the cathode-ray tube. Message-circulation distances and delays and information cancel themselves out; behavioral programs are pseudo-globalized and have resulted in what has become a kind of cultural entropy: the destruction of life itself since, for reasons to which we will return in greater detail, all human beings live the experience of their cultural singularity as a gauge of "vitality" (of neguentropy). As we have already seen, satellite technology is now firmly in place, electronic addresses have universally transgressed territories and nations, and new forms of geo-information and info-mobility will henceforth deal—industrially—with the organization of individual and collective displacements and make use of space and the connection to place as a new form and source of investment.[2]

This disruption of retentional systems of access to common spaces and times (to localized calendarity and cardinality), which in fact only appeared to a significant degree after World War II and was then characterized by an extreme intensification in the astonishing progress of digital

technologies, has almost immediately brought about a great disorientation that, if it is not acknowledged, and if the profundity of the questions underlying it are neglected, would risk generating enormous resistances, manifested as fundamentalisms, nationalisms, neofascisms, and numerous other regressive phenomena. The very essence of cultures and societies is at stake here, their most intimate relations with the cosmos, with their memory, and with themselves. To ignore or neglect them would have most tragic consequences. Because calendarity and cardinality are the elementary frames for vital rhythms, beliefs, and links between past and future, mastery of future orientation devices will also mean mastery of the global imagination.

Without doubt, a true cultural conflict over behavioral models is at work here, a conflict over collective programs for dominating markets, since that is now the concealed issue behind everything: an unprecedented and merciless global commercial war in which digital networks are already—are *at first* and *increasingly*—weapons in the battle to conquer global commerce—the global commerce of *goods* and of *ideas*. But we might ask whether there is not, in this new commerce, an explosive contradiction, the very source of the current loss of reason; now, loss of *motivation*, of the capacity for projection.

Digital Reproduction of Territory and Geo-Information

Enhancing the points of contact and communication devices between and among human groups means a tendency to reduce their ability to resist the concretizing process of technical tendencies, in terms of the adoption of new lifestyles. In *Technics and Time, 1* I ask if this tendentious permeability does not also lead to an increasing dilution of the "interior milieu" constituting the social group in the "exterior milieu" defining this social group (TT1, 62). Enhancing the contact points between various interiors, emphasizing the general permeability of the technical tendency of all groups (i.e., entropy), would tend to fold them into the "exterior milieu" of the market, what Simondon calls the "technogeographic environment"[3] when it has become mnemotechnical and thus, as such, the space of nonpublic market exchanges.

These "points of contact," which initially consisted of goods and people, then of images, currency, books, telegraphic messages, and telephone calls, have become permanent and universal: they are no longer merely

points but are now *flux*, what I have here called interlacings and synchronizations (both radiophonic and televisual), entirely integrated into digital informational networks providing access to stored data available anywhere and anytime through mobile devices as well as on telephones and interactive television, all of which modify the organization of flux, maintain it, and make it even more complex.

This intensification of contact points, their transformation into flux, and the resulting transactions (global commerce in all its forms) require new techniques for assisting in *re-orienting* products through digital navigation industries that no longer operate in the modes of past experience, as has been the case throughout history, but now in real-time informational events produced by hundreds of millions of humans worldwide every second, as they access data in "virtual spaces."

I put these words in quotation marks because we are now faced with a *metaphor* that can conceal the real dynamics of the process at work here. "Virtual spaces" are the sum total of retentional data, physically retained on/in digital supports that are inaccessible without the mediation of a representational mechanism for their information, constructing an intuitive image using interfaces to represent and render these *unreadable* material states manipulable by a nonprofessional consciousness—and this is not in any case a matter of "immateriality," a concept that is frequently bandied about and that means absolutely nothing.

To the extent that these electronic data spaces can also serve as projection screens for real-time actions on networks and central servers, as represented on computer screens by images that are themselves animated in real time, we can accurately speak of "virtual space" or "cyberspace" as if these images were in an *other* space than the *real* one. But though the phenomenon of digital replication is very important and requires a profound analysis,[4] this dangerously airy discourse, which masks the true stakes at hand while gluing its nose to the surface effects of a screen that is more or less tactile, contributes to the general loss of intelligibility of what is actually happening, to what is *being screened*.

These stakes concern the absolutely original possibilities of the projections that digital machines make of tertiary retentions. And if this is not a matter of a space other than the so-called real one, it is at least an expansion of the mechanism by which the world is projected as the double of an effect that is both exceptional and original, based on a new, phantasmic horizon simultaneously opening onto new perspectives of the

We—and its liquidation as *One*—and the era of a formidable siren call: a new cinemato-graphy.

The capacity for specific projections at the heart of this "virtual" phantasm, which is a bad way of posing the issue, on the other hand and by all accounts, constitutes a major rupture in the history of the adoption process, as well as in calendric and cardinal devices about which one might tend to say that along with this new method of broadcasting/retention, as Heidegger writes in 1926 regarding radio: "*Dasein* is today bringing about a de-distancing of the 'world' which is unforeseeable in its meaning for *Dasein*, by way of expanding and destroying the everyday surrounding world" (BT, 98). But as we have already seen, if *spatiality* is in fact affected, it is so to the extent that in the modality of being-in-the-world it is defined very generally within the system of the tertiary retentions of which this "world" consists, which is in no case an "other" space.

Rather than virtual space, we should more accurately speak of a new digital system of retentions affecting the intuiting of both space and time, a system no more nor less virtual than all other forms of tertiary retention, of time just as of space; i.e., simultaneously calendric and cardinal. And if time, understood as always hovering on the horizon of a virtual past and a virtual future, is always virtual as well, it is virtual precisely to the degree that a tertiary retention, itself always temporal *and* spatial, whether electronic or not, is virtual in that it does not participate in an act of selection of secondary and primary retentions within the event-horizon of a living consciousness.

"Virtual space," then, *does not exist*. The electronic reproducibility of places, countries, and extended geographic areas is, on the other hand, always being deployed and enacted: however undeveloped, it opens out immense perspectives through the digitization of territory and inhabitable spaces using "roaming devices" such as cell phones on infrastructures that are universally appropriable (UMTS frequencies in particular), GPS signals, webcams, and extensive geo-referential data—urban, military, demographic, economic, logistic, meteorological, etc.—geographic electronic information systems (SIG), satellites, navigation systems, etc., through all of which a process of networked re-territorialization is initiated on networks and by networks, networks that re-distribute all of geopolitics through completely unforeseen perspectives on the "information society."[5]

This grid, and the consequent digital representation of territory, is

happening now, and the general availability of the infrastructure for localized information emission has witnessed the instauration of a "second generation" of digital navigation techniques: geo-information. The digitization of territory means simultaneously having systems for navigating the geo-referenced data on digital maps that have also integrated photographs, videos, reproductions of the country or territory in all genres and directions, telephone relay beacons, usage guides, and more generally the management of portable appliances, roaming devices, and all other such instruments. This will also mean that the device user becomes a datum[6] circulating in a "data stream": electronic data physically localized and situated in interfaces simulating actual territorial spaces. Geo-information also gives territory a technical navigational function, just as Simondon shows that the sea becomes an "associated space," for example, a technical function of the Guimbal turbine used in the engines of oceangoing craft, a "natural" medium that is itself integrated into the concretization process, and is thus functionally determined by it as having become essentially techno-geographic.[7]

Transmission Industries and Educational Systems

CONSCIOUSNESSES AND SUBSTRATA: REMINDERS AND DEVELOPMENTS

The new era of epiphylogenesis brought about by mnemotechnical evolution resulting from the fusion of calculation industries, symbol production, and their telecommunication, and in which industrial technical systems and mnemotechnical systems can no longer be distinguished, is also the meeting place of a globally integrated transmission industry. Transmission is the function of a retentional mechanism forming social linkages—i.e., psychic and collective individuation.

Adoption is not transmission. The latter (transmission) is the mechanism of (de)legation; the former (adoption) is the conveyance of heritage. But adoption is not possible without agents of transmission, agents that can obviously very well *not* be adopted, that can crumble into dust.

This new era of epiphylogenesis requires the installation of a new calendarity and cardinality that are themselves integrated and global.

Only in cosmic programs and the vision they provided of the heavens did ancient systems of space and time (projecting origins and boundaries)

discover their common sources: the alternation of day and night, the cycles of the sun and moon, and the sequence of the seasons are the most universal experiences of calendarity, enriched by mnemotechniques of notation for the movements of the stars and other astronomic calculations. Starting in the thirteenth century, with sundials and hydraulic clocks, machines measured, objectivized, and delegated the computation of the passing hours to technical devices, what David Landes calls "timekeepers" or "chronometers,"[8] synchronizing social life with clock chimes, the basis of the first "meeting" at which it was necessary to "be on time": at a church office, studio, school, etc. These are the very chimes (not the bells—the *chimes*) Husserl uses as an example in his *Lessons on Time*: temporal objects.

The heavens, that immense spectacle where humanity learns contemplation—*theoreia*—is even more the space of cardinality, and "to be oriented means in one's own direction: to find in a given celestial region—we divide the horizon into four regions—other regions and, above all, the Orient" (AP, 77). Orientation presupposes this division, which is certainly no more given by an immediate experience of the sky than by the calendric computations of a wall calendar, even if it is rooted in "the sense of a difference; I mean that of left and right;" this is a "sense," to which we will return later in examining Heidegger's radical critique, whose "cardinal points" can be refuted and dismembered ("we divide the horizon into four regions") only through the formulating of the space within the materiality of a surface of figuration and schematization that would have to be called a *map*—such as that of the sky.

In *The Sovereign Map*, Christian Jacob claims that "space does not pre-exist its map":[9] space does not exist without orientation, no orientation without a physical form to carry the sense of a difference between right and left, no orienting body without the substratum of anticipation and the reconstitution of the pathway toward a mental map interiorizing a tertiary cardinality, whatever it is; there are *always* traces and topographical marks, spaces of figurative toponymies of distribution, while the map *as such* is prefigured by a proto-map dating to the Neolithic era, the Bedolina Rock, situated on an overhang above a plain that is represented *on* the rock.[10] Standing on the rock overhand before this "proto-map," which is also an archi-map, is to be in an exceptional position above the mapped territory, in suspension, as it were, in the presence of a previous age of the world that doubles as the very condition of *world*'s

construction: this exceptional place shows that—and how—the map provides the possibility of orientation, as a process of reduction, selection, and symbolization in which the space of the map is a condensation of the space of the territory, just as we live cinematic time as a condensation of the time of lived reality. The map carved into the rock at Bedolina, *as* that condensation (and not the rock itself), is the visual *over*-view of the real unity of represented space, a visual manifestation of this literally geo-graphical (geo-graphized; i.e., human) territory forming an "absolute view": a view registered by crossing cardinal boundaries.[11]

The cardinal and the calendric, established in their initiatory forms in the immediate intensity of the sky, are then disseminated much more widely with the appearance of mnemotechniques in the form of tools for measurement and figurative representation, all of which open up connections to the world that establish the world as its sense of time and space. It is impossible to understand the worlds of space or time outside these systems, which obviously do not consist only of calendar and map, watch and compass, but also of everything that contributes to the establishment of rhythms and common places: retentional devices of a higher order, *meta-retentions* structuring our access to *retentionality in general*, to the sharing of retentions and to their adoption.

As substrata synthesizing the flow of internal and external sense and of the orientation of associations corresponding to the flux of external sense, these mechanisms underpin the three syntheses through which the diversity of spatial and temporal forms is unified in apperception-as-concept, projected as schema.

The globalization at work today, often experienced as an imminent "end of the world," not only (nor even principally) for economic reasons but rather as an imminent spiritual, cultural, and existential collapse resulting in *global malaise*, can be seen in all of its dimensions in the current versions of global calendarity and cardinality.[12]

The fact that Kant does not address the fourth synthesis, the technological, in the *Critique of Pure Reason* means that he thinks of calendric and cardinal devices for the organization of the space and time of the *We*—as political. And Heidegger, who either relies on these devices or refers to them by other names (notably datability, publicity, orientation, "dis-tanzing," difference[13]), does not venture very far into them: his retreat in the face of the question of the *Weltgeschichtlichkeit* prevents him.

At the end of the previous chapter, I asked whether the consequence

of the mastery of adoption techniques by transnational programming industries would become the global commercialization of education (which would then be the grounding condition for the formation of a homogenized global population). That, in turn, would mean that regarding retentional—and meta-retentional—devices and mechanisms, it must be all the more clearly understood that educational systems are above all else loci for attaining and interiorizing calendric and cardinal devices—and, in fact, they were conceived in the West as grounding scientific and philosophical devices for acquisition of individual and collective experiences of space and time, as the history of the mind insofar as it is seen as a *We* within a *we*, a *we* that is larger than the actual and factual *We* and that opens for *us* the prospect of a universal space and time, transcending their physical sense.

The technological synthesis of tertiary retention is originarily superimposed on syntheses of consciousness. This fourth synthesis, in conditioning the synthesis of recognition, supports and articulates the three syntheses of consciousness, which could be referred to as "synthesis retention," in the sense in which we call the artifice of prosthetic replication "synthetic." In this sense, at the risk of shocking the Schools, it becomes very tempting to refer to an a priori prostheticity. A priori synthetic judgment would be supported by an "a priori" prosthetic synthesis—"a priori" still in quotation marks because in examining the terms more closely we see that there is an apriority of the synthetic judgment of consciousness as the *after-effect* of, and a posteriori to, prosthetic synthesis (i.e., empirical, pre-ceding this consciousness in time as the possibility of its already-there), but that by the same token inherits the apriority of the very synthesis of judgment that it has made possible—an after-effect that is in some way fictional, performative, and grounding—and that, being one of the conditions for the very possibility of experience-as-recognitive, is "transcendental" in existing only in and through conditions of the a-posteriority of the history of technical inventions.

This is the "a-transcendental."

So I have emphasized that the understanding preceding digitization is what has interiorized an operation consisting of a primary motricity of the external senses synchronized with the internal senses, this conjunction of the internal and external senses presupposing a digital technical system as its substratum, elaborated in the course of a history of consciousnesses that leads to the preservation of a trace of flux and its

stabilization. Returning to the analyses I suggested for geometry,[14] I showed that insofar as literary retentional synthesis supplies the retentional finitude of consciousness to proto-geometry it is presupposed by geometric reasoning, as Husserl claims in his account of the formation of the *We* of the community of geometricians, while the opening out of an infinite horizon of geometric science as the projection screen of this infinite—and there is no infinite without a screen.

But in the most general way, the literary synthesis of the flux of consciousness also makes the invention of the principle of contradiction possible. I mean "invention" in the archaic sense of "exhumation" ("invention of the holy cross"[15]). The principle of contradiction is neither discovered nor invented in its "fabrication"; from the very outset all consciousness accesses it, and in this sense it is not a discovery. But not all consciousness puts it to work successfully because of control mechanisms within its unity of flux and, in this sense, even though it is not fabricated, it is "invented"; that is, there exists a date from which it is formulated *as such* and somehow pro-duced just as one might "produce" a piece of evidence in a courtroom. And this "as such" requires a mechanism by which it can be projected.

This "as such" is the principle of contradiction defining the *thesis*, the *thetic statement*, the express position characterizing apodictic discourse as well as the publication of the law on which the *polis* is founded. Its becoming-public formally imposes the principle of contradiction. If the principle of contradiction overdetermines the projective activity of *all* consciousness, it is not conquered apodictically as long as the possibility of literarily recording a logical statement transcribing a flux of consciousness does not occur—in fact, even there consciousness is subsumed into a retentional finitude preventing it from apprehending, in its own overall unity (its *unifying*), the temporal flux of which it consists.

Thus all consciousness, even when overdetermined by this principle, can and must nonetheless accept that it contradicts itself, that it is antithetical "in itself and for itself," yet that it still must judge, by deciding and determining during the very process of constructing the "synthesis" of this existential situation. This experience is a permanent test of existence, without recourse, whatever evidence there may seem to be for the principle we call "time" that is stretched between a never-forgotten past and a never-anticipated future, as a nonexistent "horizon of possibilities." Time is, in sum, a contradictory experience of *not-being* without which,

as Valéry points out, no "future" can exist, even while a future is not even conceivable that does not simultaneously project a final resolution for the time principle, and thus the unification of lived flux within the horizon of a "peace of metaphysical opposites,"[16] as well as the *universal* flux of an ideal *We*.

Yet if consciousness in general satisfies the conditions of what the *Critique of Pure Reason* calls "analogies of experience"—permanence (substance), production (succession), and community (simultaneity)—all consciousness is nonetheless reflectively and thetically lacking access to the a priori "rules" determining the linkages with the phenomena among them, as established by these analogies. The principle of analogies rests

> on the necessary *unity* of apperception, in respect of all possible empirical consciousness, that is, of all perception, *at every* [*instant of*] *time*. And since this unity lies *a priori* at the foundation of empirical consciousness, it follows that the above principle rests on the synthetic unity of all appearances as regards their relation in time. For the original apperception stands in relation to inner sense (the sum of all representations), and indeed *a priori* to its form, that is, to the time-order of the manifold empirical consciousness. (CPR, 209)

But all consciousness is not *conscious* of what consciousness is, as a unified flux that imposes rules of and on experience: its formulation entails becoming part of this flux itself: part of its fixing and its spatialization.

Mathematical judgments, which are all synthetic, require both prosthetic and a posteriori syntheses of geometric, apperceptive unity, *as* the consciousness of an ideal *We* that—after the fact—appears to be a priori, in the after-effect of the experience of this *a posteriority* (the experience of a necessary thought that *becomes* necessary to the extent that it is engrammed: the thought of geometry figuring and inscribing its own subsumption), and despite the fact that the means of discovery is clearly also the discovery of a priori synthetic judgments, demonstrating "necessity which cannot be derived from experience" (CPR, 52).

But "experience" here has two senses. The first is experience of what is permanent as phenomenal space available to the external senses; the second, experience of what is fluid and yet ideally unifiable in apprehension, reproduction, and recognition, as well as in internal sense, such that it can be placed on the crutches of permanent representations that can always vary but whose inscription in the permanence of tertiary retentions

(which themselves result simultaneously from internal and external senses) stabilize and synchronize internal and external sense). It will become increasingly clear, when we return to the question of grammar,[17] that this is equally true for the categories.

In this extreme sense, techno-logical syntheses of tertiary retention are imposed on syntheses of consciousness.[18] But that would mean that this industrial synthesis directly interrogates consciousness as such—in that it has apprehended itself "as such" during an age of thought that is precisely that of *the thought of consciousness*, also known as modern philosophy.[19]

The very possibility of this interrogation signifies that the flux of consciousness only proceeds according to the substrata sketching out such a course. Consciousness is a flux engendering whirlwinds, emanating from what we will explore in *Technics and Time, 5* as phenomenon and recurrence: consciousness is constructed out of swirling microflux in the course of which historical unities form, unities that are always at once smaller and larger than the flux of consciousness itself. Thus, the history of geometry is greater than the geometrician. And a geometrician is always more than a geometrician; in *this* respect, geometry is "smaller" than the geometrician.

We have seen that flux of consciousness is a montage proceeding through capturing (recording), grafting (montage), mixing (editing), and post-production (publicity) resulting in the phenomenon of adoption, which gives the flux projective unity. Capturing, grafting, mixing, post-production, and montage all require retentional instruments through which the course of flux takes on obligations in which it finds itself "taken": it is a series of "takes." These obligations put Kant's three syntheses into play: each of them is thus techno-logically conditionable by the substrata of tertiary retentions forming the flux in and of its (their) duration.

Since the nineteenth century a *new consciousness* has been in action, first thought in the seventeenth century as *I think*, a century and a half after the "discovery" of America and the invention of printing; this new consciousness became increasingly general when its substrata were interiorized on a massive scale through public education, the book having already become both a commodity and an industry.

Public instruction provided by the national government is the nationalized organizing of the interiorization (and naturalization) of the a priori prosthetic synthesis. This age of the *installing* of consciousness, running from the arrival of printing and colonization to the educational theory

of Jules Ferry,[20] corresponds equally to an intellectual and technological grammar war, what Sylvain Auroux calls "grammatization," through which Western Europe has adopted its theologico-political model: this *war of typography* that has imposed itself on the world as a colonial network and "republic of letters" is a war whose spoils are minds.

The seventeenth-century *I think* was concretized and generalized during the nineteenth century at the heart of the first Industrial Revolution through the mass interiorization of substrata that conditioned (and still condition) its course.[21] The number of French schoolchildren rose from 1,939,000 in 1832 to 5,526,000 in 1886: 47.5% of the school-age population in 1850 to 93.5% by 1896 (FF, 275–76): interiorization was systematized generally across an educational structure based on rote learning of the alphabet, arithmetic, reading skills, and familiarity with "universal ideas"; this was the French version of what German educators called *Bildung*,[22] a "formulation" or formula based on the projection of an image (*Bild*).

This national(ized) literary projection was and is a synchronization constructing the unity of the democratic industrial *We*—but whose projected object is equally a *dia*chronization, acquisition of a particular faculty of judgment (for the synthesizing of contradictions),[23] or more precisely, not acquisition but invention of this "faculty" that is already-there but that asks (as does the principle of contradiction) to be expressed publicly "before a public that reads"; i.e., practiced. The public practice of this faculty *as such* constructs a public *space*, a *res publica* whose institution is "the school," and literal or literary projection is both the *res publica*'s space and its projection screen. And, since the Greeks, the construction of its *polis*. But this process can only occur as a result of typographic standardization made possible through the invention of a subject-space: that of the modern republic.

At the same time that public education was developing, the mass press was also forming, still strongly under the influence of the opinion-oriented press that had opened a space for the confrontation of ideas during the previous century. We must not underestimate the fact that this new consciousness was at once the result of the revolutionary spirit born in the eighteenth-century Enlightenment (particularly through Rousseau, Kant, and Condorcet), and an essential aspect of the organizing of the adoption process of modernity, in that it then proceeded through and from the Industrial Revolution; this is the double sense of *compulsory* public instruction.

Given that, today, mechanized understanding and the schematism of the culture industries have converged, this educational system, a *product* of the nineteenth century but inspired by the seventeenth and eighteenth as a structure for the interiorization of prostheses constructing the history of ideas and knowledge and of the *We* insofar as universal consciousness disseminates national stories—this educational system is itself now being questioned within the technical system as it (and, along with it, consciousness) transforms into the global mnemotechnical industrial system of retentions: international programming industries substitute for national programming institutions (national educational systems) that no longer appear to be compatible with the new imperatives of transmission, as (now) defined by the global industrial mnemotechnical system. A true war of minds is at work inside this evolution, centered in the United States (though as we shall see, the United States is only following what had already been initiated in Western Europe), in a process whose very possibility was originarily inscribed in the adoption process by which all socialization is characterized.

Transmission Industries and Educational Systems

ORIENTATION AND RETENTION

The crisis in national education systems was declared long ago. Programming industries have ubiquitously installed themselves in our daily life and have re-defined calendarity; given the educational system is itself a calendric and cardinal programming institution, it has necessarily suffered during this evolution. However, the power of the educational system's own devices has until recently at least seemed to be capable of resisting this destabilization. It has been supported by its legacy of prestige and the instituting of a mnemotechnical system that remained separate from technical systems of production for more than two thousand years.

The modern educational system was in fact constructed in a retentional age in which the mnemotechnical system remained independent of a nonglobalized technical system that had not been completely subsumed by the market. But this is simply no longer the case, given the current systematic integration of industrial transmission in which the principal market is the transmission of knowledge (as information). This evolution can be seen very clearly in the global presence of digital programming

industries that are now integral to newspaper and network opinion programs, such as those presented at the British Columbia Teachers' Federation conference in Vancouver in 2000,[24] devoted to the world markets for new educational technologies.

This evolution has been unavoidable; it is the direct consequence of the implementation of orientation devices emerging from the transmission industries and based on digital retentional supports that destabilize the hegemony of any literary synthesis while still integrating it into its hypertext and hypermedia mechanisms. This transnational digital programming industry, a new component of the instituting of programs for national education defining "*our* teaching establishments,"[25] is significantly more powerful than the mass media that already greatly interfere with school, and that have developed, certainly in France as well as in the United States, in less than thirty years, along with the (neo)liberalization of television, the correlative appearance of advertising, and the privatization of most programming.

Between the second half of the nineteenth century and the appearance of the contemporary programming industry, the school quasi-hegemonically assumed the role of overseer of calendric and cardinal orientation. Newspapers, as an extension of it, obviously benefited from the public's training as readers. The initial "scholarly" instruction consisted of spelling, arithmetic (on both of which technologies of reference-retention could be based), history, and geography, in the form of ancestral names, national territories, and their projections on geographic and administrative maps. These elements were the originary modern bases of the adoption process that, in teaching a common past, created the interiorized tertiary retentional conditions by which the projection technologies of a shared future became possible, and through which one can ideally be oriented with regard to the development of one's judgment; that is, according to one's own freedom: a nation can thus be forged through its schools.

Only an educational institution can provide historical consciousness to collective consciousness, and only an educational institution has the skills to construct geographic consciousness; this has repercussions for the history of knowledge (and the knowledge of history) itself as well as for the geography of knowledge; indeed, it profoundly affects the contribution of all knowledge to the comprehension of the geophysical and of *scale*, since all such education depends on the scale of perceptions, from the

infinitely large to the infinitely small, of the symbolic space of language and artistic forms, of the physical space of mechanical phenomena, of the living space of "natural beings," the historic space of human beings, etc.

As the system responsible for the orienting of knowledge, the educational institution is a device for condensing, abbreviating, contracting, and projecting the history and future of knowledge, reiterated each time at a different level of the possible acquisition of knowledge for consciousness: primary, secondary, university, etc. Like map space and cinematic time, the time of the educational institution is a contraction. But this system, as successive recapitulations of knowledge (and methodology) pathways, can only function if a retentional flux, whether an *I think* or a *We*, is itself essentially subject not just to contraction but to contradiction, abbreviation, condensation (including in its Freudian sense), calculation, and theorization. Knowledge as such is essentially dedicated to abridging formalizations, especially as a scholar's self-addressed messages: knowledge is always knowledge contraction (description, analysis, formalization, synthesis); formalization that requires formation is already inherently contraction. The thinker contracts and formalizes, and this is how thought takes place, forming and transforming.[26]

The school organizes the flux of the *We* as "consciousness of identity," as the production system of this flux according to certain principles (whether scientific, republican, or religious); and these are the same principles of montage and of selection, through reactivation, for the flux of consciousness's contacting its past: consciousness of those who *know* and in whom knowledge is *remembered*. Like the system of orientation within the history of the intellective *We*, the educational system should also be the place for interiorizing the *formalizations* of the constitutive modalities of the *I*'s flux and thus of the *formation* of this *I as* coherent flux, initially through analysis of its discursivity. Grammatical analysis then opens access to analysis of the flux of consciousness, through language and the flux of the *We*, by its usage rules and its formal dimensions that then collectively give access to logical analysis and to synthetic and analytic judgments that are the building blocks of disciplines.

As the synthetic substrata beneath the flow of both internal and external sense and the orientation of the directions of their flow, that is, as practical and theoretical judgments implementing the external senses as exercises corresponding to these flows, retentional devices support the three syntheses through which disparate elements in both spatial and

temporal forms of intuition are unified in apperception-as-concept, which is then projected in the guise of schema-as-method. These elements are interiorized in the educational institution; production of these schema then requires—in order for these methods to be acquired—practices consistent with every variety of motor behavior: recitation, dictation, redaction, calculation, demonstration, resolution of equations, textual commentary, dissertations, experimentation, and composition, all consigned to school notebooks in preparation for examinations and competitions.

National education has been, and remains, a system in which the teacher or professor is a perpetual student; a system in which notebooks, books, classrooms, blackboards, and whiteboards are simply support elements, all engaged in the implementation of the mnemotechnical/alphabetical system. Given that the school both reproduces elementary knowledge and constructs future professors, these elements form a complex retentional mechanism consisting of, in the French system:

—examinations and competitions through which *professors* are judged in terms of their capability of successful teaching practices; that is, of producing the adoption and interiorization of the specific retentions that have been accredited according to a particular discipline;

—academic and other more general inspections and supervisions through which various programs are defined and their dissemination governed;

—a university in which various knowledges, as the criteria through which it exists and of which it consists, are critiqued and re-worked, and national commissions in which these activities are evaluated;

—elite schools [in France, the *écoles normales supérieures*], programs, and institutes;[27]

—scholarly and university *presses* and *journals* specializing in the publication of manuals, textbooks, and research findings, i.e., in the establishment and diffusion of retentional devices as such.

These specialized publications appear within the context of the entire body of knowledge of all the experts in a given field, who elaborate through these works the specifications that have been published, for example, in France, in the official bulletin of the Ministry of National Education and, in the university versions, reading committees consisting of members of the various scientific communities. Each publication must in principle submit to the controls that accredit the official

supports (journals, etc.) containing the retentions available to professors and students.

Finally, certain selected professors oversee the production of this content, which in France is a prestigious job, well paid and sought after.[28]

All of this apparatus requires bookstores, office supply stores, libraries, etc. The system depends on a common mnemotechnical culture, or at least one that must become common to all participants, a culture that is both their milieu and the condition for their unity of flux's invention: it is the culture of writing *as* the literal/literary synthesis of the flux of (past) consciousness; the elaborate conversation surrounding it constitutes the treasury of accessible knowledge and the play of the substrata of consciousness insofar as it is conscious of itself.

The principles that must be acquired by the beneficiaries of this system of transmission, namely, the generations who in using them can in a few short years revisit the totality of rational knowledge through the time-contraction device of the *We* (the condition of adoption) forged in and by this culture of writing: they are the concretions of its analytic and synthetic possibilities and the effective formulator of the foundations of this adoption process in the modern democracy.

But it is not at all certain that such principles can still be transmitted into a/the future, nor even that they still truly exist today. The retentional devices in which they were forged have become marginal at best, which has meant that the system as a whole seems in some sense to be both spinning its wheels and changing its function. We already see the school as a kind of playground for babysitting and a surrogate for child rearing. But this educational *malaise* is perhaps less the result of a social, economic, political, and even moral crisis than of a truly *extraordinary* crisis of knowledge—knowledge being *ordinarily* in crisis.

This extra-ordinary critique leaves all those responsible for the transmission of knowledge completely stripped of their role and plunges them into a dangerous and inevitably reactionary culpability that is all the more energetic when demagogues of all kinds, including Nobel Prize winners, do not hesitate to denounce vehemently, in their new discomfort, any incompetence or apparent illegitimacy seeming to derive from a drift toward corporate or union interests—if not of something essentially perverse in the teacher's craft itself. This then becomes a singularly sordid expression of the malaise that expanded in France during the late twentieth century.

Transmission Industries and Educational Systems

THE DISINTEGRATION OF KNOWLEDGE AND DENIAL OF NON-KNOWLEDGE

The problem, however, is even more significant, much more grave and preoccupying—and ultimately invisible to anyone who is unaware of contemporary scientific research. If there is currently a social, economic, political, or moral crisis, and if it has inevitably led to an insidious corporatism, these are merely consequences. These social, economic, political, and moral effects that have now become insupportable in the life of "our" teaching establishments result from the disintegration of knowledge itself that occurs when technoscience displaces science—including political knowledge that, through default, is itself replaced by simple skills[29] that clearly do not permit any further thought of the school's future than they do of all other dimensions of the future of a *We*.

For the most part, whether "teachers" are professors, researchers, or members of institutes, they understand that if technoscientific knowledge continues to spread at its current rate, knowledge as the ideal, universal unity of a *We* will enter into an irreversible process of collapse in which it will be erased, if it has not already done so; this is precisely what Husserl and Valéry had warned about, but that would be in the end (after a century of technologization of mathematics through instruments of calculation and the acceleration of the "consequences of ubiquity") incommensurably more serious: indeed it would be at least quasi-apocalyptic not, perhaps, for the world in general but for the world *of rationality*.

The "schools crisis" essentially results not from students' lack of discipline, nor from "incivility" among the "disadvantaged," nor from teachers' seeing themselves as civil servants, nor from the sheer weight of the (always-)current economic crisis, nor even from the ever-increasing weight of the programming industries and the new media. And it has nothing to do with immigration, which is today less important a factor than ever, and that in any case is essential to the economic, social, technical, and scientific development of any modern country, as we saw in the preceding chapter. All of these elements contribute to the crisis, but only as the disparate consequences of specific knowledges' inability to understand the new situation, and thus of the failure of the analytic criteria and theories of synthesis that should construct an epistemic mechanism

of appropriate retentions, and as the incapacity that results in the *forging* of the grounding integrators of a *We*, i.e., of the vision of a desired future in its indeterminable form, its factual improbability, its uncertain frontiers, and its ideality, in both the Kantian and the Husserlian senses of the word.

Only a *critique* can undo a *crisis*, only through the opening of a new era (as the bearer of other crises)—and only through specific *criteria* can such a critique be carried out, as what I have called a "new critique." But if such criteria were initially (and are always) the criteria of retention, it is inconceivable that the processes of rupture that have occurred in retentional mnemotechnological technologies in just the last few decades, and that constitute the truly extraordinary character of this crisis of European sciences' becoming Americo-global technosciences, are not in some fashion theorized as such through disciplinary knowledges. The consequences of this development can be defined as "knowledge" and "non-knowledge."

Many non-knowledges are being produced today, which is inevitable if we take into account both the incredible accelerations and the complexities resulting from the becoming-technoscientific of so many aspects of contemporary life through marketing, from both the crisis of fundamentals catalyzed by new retentional techniques and from what I am calling here the dis-integration engendering a new division of intellectual labor, which Nietzsche was already denouncing in 1872:

> The utilization, much wished-for in our day, of the scholar in the service of his discipline renders the scholar's *culture* more and more aleatory and incredible, since the field of study in the sciences is today as extended as that which, with good but not exceptional intentions, wishes to produce something that can be consecrated to a very particular specialty and will not care about any other. If in its specialization it is above the *vulgus*, it forms a part of all the rest; that is, for everything that is important. Thus, an exclusively specialized scholar resembles a factory worker who all his life does nothing other than to fabricate a particular screw or a certain handle for a tool or some machine, a task by which it attains, one must say it, an incredible virtuosity.[30]

The proliferation of non-knowledges inevitably resulting from this situation, which is only reinforced through the pursuit of industrialization, is perpetually masked: it is in fact the object of scandalous denials, even when it is largely felt, contrary to what was the case in Nietzsche's time, throughout the immense masses of consciousness whose "reification" does not

manage to deprive it of all judgment, of all "arbitrators," and of the "good sense" about which audience-consumers actually understand nothing.

These mass consciousnesses are then placed in a condition of doubt, but dangerously, not methodically, since this would be the role of knowledge and its spokespeople attempting to provide some general desire, not anguish or anxiety. In place of desire, media promulgates echoes of positivist commotion that fools no one except for a few zealots and fear-mongering "journalists"[31] who are actually in denial and who will inevitably end up being exposed, just as politicians are currently being.

As a publicly administered global retentional device, the educational system is an orienting device that is only capable of functioning when it incarnates a confidence that is neither negative nor positive but *interrogative* even in the face of the youngest consciousnesses, by teachers who are both dedicated and involved [*mus et émus*] as a result of their caring for knowledge and having *confidence* in it; when the system incarnates and exposes the differences in and the conjunction of knowledge and nonknowledge and, finally, when it is the living experience of differences that must be learned and synthesized, as fragile as they can and must be—that must be practiced in order to be transmitted, that must in fact be transmitted and received precisely *because* not constructed spontaneously, and finally, that encounters in the consciousnesses to be raised and formed what Kant calls a subjective principle of differentiation that itself must be stretched and expanded through practice.

The *motricity* of this projection mechanism of an ideal *We*, this modern educational system, must be built on the constant affirmation of this difference, which can be expressed in many ways but that is prepared to declare, for example, that if a = a, then a is *different* from non-a, or that what is true is *different* from what is false, or that rights receive their authority from their radical *difference* from mere facts. This motricity, without which the mechanism would and could no longer function, depends on (depends *from*) this difference (which, we must recall, is never a simple opposition) as manifested in various disciplines' criteria, which must themselves be continuously critiqued.

But as the sciences have become technosciences we no longer know what these disciplines are, let alone their criteria, so that any such critique appears to have broken down; at best, it might now be called "resistance." But resistance to what?

Critique analyzes something it is resisting, that it must resist, and that

must be interiorized in order to be adopted—in order to be resisted. What must be analyzed and critiqued as a first priority are precisely these retentional devices: only by understanding them can we understand the new radicality of technoscientific reality through scientific disciplines as they have been defined from Plato to Kant—that is, through the role of instrumental experimentation and simulation in the physical sciences, the very possibility of this simulation as projection, cognitive models of understanding and the role they play in defining contemporary retentional prostheses (most notably in the economy and management, now known as *knowledge management*) of the disruption of humanity's evolutionary conditions in their molecular reification and industrial reproducibility, of the role of ancient archives and historical news, of writings about human life in various geographic spaces, of computer-assisted textual study, of previously unadjudicated legal questions raised by the new industrial reproducibility, of calculation theory in mathematics, etc.

From the computing of solar and lunar cycles to the global calendarity through which digital networks have been created, from the Bedolina Rock to global positioning systems, retentional devices and mechanisms through which orientation takes place have been organized into systems of "navigation" that have undergone a major mutation and a further extension of their roles through their ability to regiment these processes: they have been put to service in these new industries within both society and technoscientific disciplines. The effect of this evolution has been to destabilize other proto-orientational mechanisms such as educational systems that have traditionally been responsible for interiorizing the grounding retentional mechanisms connecting space and time; these destabilized mechanisms are the programming *institutions* whose function is to (re-)establish young minds' orientational modes of access (the evolutionary processes through which the *I* becomes *We*) to the space and time of the *We*, modes of ordinary access that are already in existence and that are still to come, such as the pre-schools that Heidegger calls "preoccupation" that pose the problematic question of the *selection* in the educational system, a question that can only be properly faced by thinking through selection *in general*, the fundamental question regarding retentional mechanisms *and* the theories and practices of science and technology.

Compulsory (public) education[32] (appearing at roughly the same time as the phonograph), which is at once a project of the Enlightenment and a mechanism for the adjustment and organization of adoption for

modernity, constitutes by the end of the nineteenth century and the beginning of the twentieth society's main system of orientation: orientation *in thought* through implementation of supposedly universal principles of differentiation (e.g., a ≠ not-a, true/false, etc.) but not universally reified and formalized since "universality" remains "unformed." The thought in which orientation is to take place is available as a body of substrata requiring a *We*, tertiary retentions presenting themselves chiefly in the form of "objects invested with spirit," Husserl's designation for books as literal/literary syntheses of re-cognition. Today, this system has been negated, or at least apparently so, by new criteria whose implementation no longer corresponds to the need for the adoption, orientation, and navigation that would be required by any new *retentional* reality.

Yet in fact one could just as easily assert the inverse: that these new retentional data have no other criteria than the blind pursuit of immediate profit whatever the cost; this would account for the fact that in such circumstances, since retentional synthesis is not being thought, knowledge is today no longer being inherited, given that the current process lacks the capacity to produce *generalized* intelligence.

It might seem very naïve thus to formulate this as the possible cause of generalized malaise, as the ontological *in*difference catalyzing this "question of malaise"; however, in the end it is the *only* conceivable avenue by which to proceed. Any factual state cannot possibly be critiqued without providing some explanation for its existence and, through it, its imperative. Any other strategy leads to an attitude of empty renunciation. And the question is not one of knowing whether those who *know*, reaping some benefit from this malaise, do so knowingly or not—if they are *agents of this malady*. The question is one of knowing why to question a malaise that *also* makes those who (literally) profit from it suffer, and how it might be possible to create conditions such that a *We* could participate in the researching of *this* question. And further, how addressing it might be even more possible through its being transformed into a *less* malevolent question—as a projection of the *We*, for example, a capacity to construct a discourse of universalization that could obviously and even inevitably be a discourse of *struggle*, thus making it a question of ubiquitous difference.

This question of cultural sickness or evil is thus not merely one of the immorality of "profiteers" doing ill to others, but of knowing what, currently and to come, creates the distinction between best and worst.

In actual fact, two rational structures—market power and faulty thought—are contributing to and reinforcing this expanding malaise:

—short-term criteria that industrial investors think is in their best interest, as opposed to implementation of the steps needed for moving toward an understanding of the processes that are currently in operation;

—on the other hand, a kind of lazy thinking and an immersion in denunciation lying at the very heart of "commerce" that can be quite useful (and profitable) as an alibi, allowing thought to avoid confronting its true object while simultaneously reinforcing a shallow, venal perspective that has become more vulgar than ever before.

The effort required for this critique is even more distasteful than the question of scholarly orientation as selection, when it is presented as the consequence of what has proceeded it; the question of transmission-as-retention is *inevitably* one of selection. The question of selection, when posed in the school, becomes that of translating facts that throw a society itself into question, a process of which by rights, if not in fact, the school is the very source: "by rights" the school's "rights" themselves should be questioned relative to the *fact* of the industrial integration of transmission, and whose influence is declining in most technoscientific areas—this is *disorientation* in the truest sense. And it is not occurring through a sociological, economic, or even political analysis that could be responded to by challenging the place of selection within the educational system; it could only happen, rather, through a thinking of selection as the very heart of the *primordial* question of retention, and thus through a general epistemological re-evaluation (what I am calling "new critique").

We tend to understand retentional mechanisms in general, and in specific scientific ones, through what constitute for us the great achievements of philosophic thought in, for example, Kant, Husserl, Heidegger, and Simondon. But none of these great systems of thought have fully or finally been able to carry the idea of retentional finitude—syntheses—through to completion, when they have not entirely ignored them—Jacques Derrida occupies the pivotal place in this endeavor, as I have tried to show in *Symboles et Diabols*. But since our central question here has become that of orientation and its criteria, we must now look closely at Heidegger's analysis of spatiality, as well as at the critique (and the criteria) that analysis opposes to the Kantian analysis of orientation, as it emerges from the great debate among the *Aufklärer*.

§ 5 Making (the) Difference

The Spatiality of Being-in-the-World and the "Absolutely Unperceived Passage"

In its analysis of spatiality, *Being and Time* objects that Kant has *forgotten* "in-the-world-ness,"[1] as part of his reasoning in *What Is Orientation in Thinking?*

This passage in *Being and Time*, at which I have already looked closely in *Technics and Time, 1*, should interest us all the more now since it concerns radio broadcasting, which had just been born.

In 1926, civil broadcasting by radio had only existed for a few years—fewer than five. Hertz had discovered electro-magnetic waves in 1888, eleven years after Edison's invention of the phonograph and three years before the appearance of Husserl's *Philosophy of Arithmetic*. In 1895, Marconi made use of Hertz's discovery and invented the defining principles of radio diffusion, five years after Marey's invention of chrono-photography, one year after the Lumière brothers' cinematic camera (which was also a projecting machine), and six years before the publication of Husserl's *Logical Investigations*. Lee de Forest created the triode in the United States in 1912, the same year as Husserl's courses on the temporal object and one year before the publication of *Ideas Pertaining to a Pure Phenomenology*. Electron tube amplifiers were developed during the First World War while Heidegger was editing his *Habilitationsschrift*, "The Categories and Theory of Meaning of Duns Scotus," and Husserl was working through his investigations on time. The first radio "stations" began their emissions in 1923, a year before the conference entitled *Concept of Time*.

Hitler took his first steps into politics.

Heidegger refers to the existential necessity of radio as what in *Being and Time* he calls "de-distancing" (*Ent-fernung*) which is, along with orientation (*Ausrichtung*), the existential conception of *Dasein*'s spatiality. But being conscious that the sense of this very recent technical innovation means that it is "still difficult to control the visual," he forgets radio's programmatic purpose—i.e., its simultaneously cardinal and calendric retentional function.

What is more, while he is working through Husserl's *On the Phenomenology of the Consciousness of Internal Time*, which he finishes editing with Edith Stein in 1928—he dedicates *Being and Time* to Husserl "in friendship and admiration," "on the occasion of April 8, 1926," i.e., on Husserl's sixty-seventh birthday—the *temporal* character of objects diffusing and connecting radio diffusion completely escapes him. It might be objected here that in the twenty-third paragraph of *Being and Time*, which deals with spatiality, time itself is not an issue. But other than the fact that this argument would be very dubious, as we will see, and as Heidegger himself underlines: space can only be thought, he says, through time, though he makes no mention of radiophonics in his analyses of temporality[2]—even when he discusses "intratemporality," the technical temporality of "preoccupation" and time measurement.

Thus Heidegger's critique of Kant, on which the entire analysis of spatiality in *Being and Time* rests, can be turned back against its author. We will do precisely that by showing that Heidegger's existential analysis has no idea how to establish that in-the-world-ness, exclusively out of which the thought of space can occur, is first and foremost retentions and the necessity of being oriented in them before all distribution, whether temporal or spatial, of this state of things, through calendric and cardinal devices (as substrata of spatiality and *Dasein*'s originary temporality): as we have already emphasized numerous times, a tertiary retention is entirely and irreducibly spatial *and* temporal; it is the "spacing out of time" and a "temporalization of space"—a différance.

The section of *Being and Time* analyzing orientation in space, entitled "The Spatiality of Being-in-the-World," first asserts that *Dasein* can be affected by the spatiality of being-in-the-world only because it is itself originarily spatial, in the sense that "initially and for the most part" it is "de-distancing," it tends to bring what is far away *closer*, it "de-distances" what is at a distance; it has

> an essential tendency toward nearness. All kinds of increasing speed with which we are more or less compelled to go along today push for overcoming distance. With the "radio," for example, Da-sein is bringing about today de-distancing of the "world" which is unforeseeable in its meaning for Da-sein, by way of expanding and destroying the everyday surrounding world. (BT, 98)

This de-distancing articulates prostheses, of which radio is but one case, like eyeglasses or even streets—though it is singularly "difficult to control the visual in its existential sense." These de-distanced prostheses as a whole "initially and for the most part," are essentially forgotten:

> Seeing and hearing are senses of distance not because of their scope, but because Da-sein, de-distancing, predominantly lives in them. For someone who, for example, wears spectacles which are distantially so near to him that they are "sitting on his nose," this useful thing is further away in the surrounding world than the picture on the wall across the room. This useful thing has so little nearness that it is often not even to be found at all initially. Useful things for seeing, and those for hearing, for example, the telephone receiver, have the inconspicuousness of what is initially at hand which we characterized. That is also true, for example, of the street, the useful thing for walking. (BT, 99)

But this "not even to be found at all initially" is not just nor primordially a matter of the naturalized character of prostheses as objects in their widest generality, the spoon as a tool for eating, money as a tool for exchange, clothing as a tool for protecting oneself against heat and cold or hiding one's nakedness, and appearing as what Heidegger calls the "complex tools of the world." This is also—perhaps above all—a matter of the forgetting of retentional mechanisms supporting this world of tools that are themselves forgotten *as* tools, devices that precisely constitute this world *as* world, and through whose interiorization we see, sense, move, think, etc.

This is equally true in particular, and in the specific sense of writing, of the document and the retentional underpinnings of the properly mnemotechnical already-there. We explored at length, in *Technics and Time, 1* (chapters 2 and 3), why the specificity of a "consciousness of images" and other synthetic retentions can escape, and through an imperative that Heidegger himself describes without seeing that he is describing it, as the de-distancing that he imputes to *Dasein* and its ipseity. It is important to

return to this once again now because its consequences are decisive for the question of orientation that immediately follows that of de-distancing, and for the critique of *What Is Orientation in Thinking*? As a result, it is decisive for a discussion of the subjective principle of differentiation.

Heidegger denounces the "pure condition of spirit" that would be this purely subjective principle of differentiation of right and left that in Kant is the a priori principle of the subject's orientation in space. For Heidegger, this orientational apriority is less a principle of differentiation of left and right than *Dasein*'s very spatiality as its mode of being-in-the-world, as the existentiality of this being-in-the-world where, in other words, the fact that *Dasein* is initially, always already and necessarily, outside itself. This a priori principle is but one "psychologizing" way *not* to see *Dasein*'s a priori in-the-world-ness, constituted as it is in the originary knowledge of an ontological difference.

The careful way in which Kant disengages apriority from his orientation of the directionality of right and left only serves to make clearer everything that the world's already-there lacks; this is why Heidegger focuses on this text as an exemplary case of being metaphysically blind to the very being of this *being-there* that we ourselves are, being originarily situated in, by, and as this *there*. This is not a matter of any given left and right, says Heidegger; this is world. But he urges us to note here that in his psychologizing reasoning, which Kant neglected, this is—precisely—*memory*:

> If I am to get oriented, the "mere feeling of the difference" between my two sides does not help at all as long as I do not apprehend some particular object "whose position," as Kant casually remarks, "I have in mind." (BT, 101)

Alexis Philonenko points out the objection, insisting on the memory supporting the object:

> One can easily imagine what serious critique of Kantianism could follow from this remark. This "memory" to which Kant accords so little importance is in reality a manifestation of in-the-world-ness, of being-in-the-world: it signifies—regarding what concerns orientation—that I only orient myself *in* the world and out of the world. Properly thought through, the Kantian analysis contains an absurdity: it tries to give a meaning to orientation as abstraction made in the world and to make possible an orientation *in* the world *without* the world. And this contradiction becomes obvious in the Kantian failure to ground orientation in a purely subjective principle. (AP, 69)

But if I focus on an object and then remember its position, the object is itself a "memory-aid" that is not at all psychologically simple: it is in a singular sense a substratum of internal sense, a permanence in the flowing out of flux, as Kant says.

Kant can be taken to task for engaging here in the same forgetting as in his analysis of schematism, in which he works through the numeration of the numbers 5 and 1000 as resulting from a method of abstraction about which we have seen that it makes abstractions of concrete computing devices and abstraction—clay counting balls, image-objects, and material/abstract representations of the tribe, all of which at a certain point constitute a materialized decimal system that an educational system can mentalize on the basis of repeated gestures.

But one could also show that in *Kant and the Problem of Metaphysics*, Heidegger radicalizes the resulting opposition between image and schema, and what he ascribes to Kant in *Being and Time*, supporting it without understanding the consequences of doing so. Heidegger's failure to think tertiary retention under the name he gives to *Weltgeschichtlichkeit*, which is also his pure and simple forgetting of the thought of the existential nature of teaching, is his failure to think schematization as transcendental imagination, as *Dasein*'s temporality, according to his own analyses in the work cited.

Heidegger's reproach to Kant means that being-in-the-world is a being-in-the-"mondo-historiality" of the memory of the world, *ein in-der-Weltgeschichtlichkeit-sein*, a being-in-the-world in which the world is the memory of objects and objects of memory, beyond the "complex tools" and "references": a fabric of tertiary retentions that are the condition of primary and secondary retentions, as *Being and Time* indicates: they are possible, the existential analytic tells us, only through the facticity of an already-there.

In dismissing this retentional fabric of the originary constituting of time, of what he calls the "proper time" of *Dasein* and through his opposition to the "time of preoccupation" of the *One*, under the pretext that tertiary retention is also the material support for the calculation and the measurement of time, Heidegger is thus prevented from engaging a true critique of neither Kant nor Husserl: he does precisely the same thing he accuses Kant of doing.

If Kant is not able to detect this *contradiction*, in which he attempts to call the world back to an a priori principle, which is *his*

contradiction—ostensibly demonstrating that it is not possible for any flux of consciousness, even Kant's own version of it, to respect his unifying principles, even when they have been formalized by that consciousness itself—it is, as Philonenko points out,

> as a result of his conception of space that he conceives it as the frame within which the world will lay itself out; in other words, the Kantian subject has no originary relation to a world, but only to a space; he is originarily subject-without-world; it is because he has a space that he can have a world, and not because he has a world that he can have a space. Consequently, if space logically precedes world and conditions its dimensions, the principle permitting the operation of a distinction regarding space a priori—the sense of left and right—will also permit me to operate a posteriori distinctions in the world. Thus the foundation of the Kantian analysis appears at the same time as its contradiction: it is the apriority of space, and it is nothing other than this apriority that is brought into question through the critique of the Kantian principle of orientation in space. The true a priori, as the need for a memory of any object's position clearly shows, is not space in the Kantian sense, but being-in-the-world. (AP, 69)

But in fact, to have a world can *be Dasein*'s spatiality only because this in-the-world-ness is itself the in-the-world-ness of the *temporality* that *is Dasein*. Spatiality *is* the in-the-world-ness of *Dasein*. And *Dasein*'s in-the-world-ness is first and always, as the already-there, its temporality. Thus *Dasein*'s spatiality is its temporality. In other words, temporality must itself be worldly in a different sense from that which Heidegger accords to this qualifier when referring to "innerworldly" temporality, but which operates through this "innerworldliness" so that the in-the-world-ness of the temporality of *Dasein* (as having-being) *its* time interweaves with it (with *Dasein*'s temporality) as what conditions its synthesis.

Briefly, then, "the true a priori, as the need for a memory of any object's position clearly shows, is not space in the Kantian sense, but being-in-the-world"; that is, time as inheritance (transmission and adoption) of tertiary retentions, such that they are at once spatial and temporal, *preceding* (as différance) the difference between space and time. Only in these terms can the real question of cardinality and thus of spatiality (of spatiality as world and not as space): the question of cardinality must inexorably be asked as one of calendarity.

The "Existential" Meaning of Education

The question of cardinality is inescapably that of calendarity, but Heidegger assimilates it into intratemporality, to the measuring of time, within the "vulgar conception of time." Intratemporality, as well as calendarity, is addressed in *Being and Time* as measured time at once common and calculable, occludes the phenomenon of originary temporality as the "proper" time of being-toward-death, the time of the radical indetermination of *Dasein*'s future—remembering that this is in some respect pre-affected by the radical indetermination of the moment of the *end* of *Dasein*. Indetermination of *Dasein*'s future means indetermination of the "dénouement" of this consciousness as temporal flux (and also Heideggerian *Dasein*), which is entirely turned, originarily and permanently, but through a process that is originarily concealed, toward the moment of its own end, its death.

In *Being and Time*, intratemporality activates the way of determining this indeterminacy, the flight of *Dasein* in the face of its "having-being"; its escape from the irreducible singularity of its destiny, through the sharing of a common time, a synchrony, which Heidegger calls the time of preoccupation. This common time is obviously that of a destiny for all *Dasein* but, as Heidegger says, it is *derived*; it is not originary time: it is, rather, the veiling of time-proper, and the source of the inauthenticity through which *Dasein* becomes *One*.

It is for this reason that in the end *Being and Time* excludes *Weltgeschichtlichkeit*: as document and the trace, antiquities are assimilated into the ontic and intratemporal domain—resulting in what we saw at work in the previous paragraph—even if retentional elements seem to need to be distinguished for Heidegger, simple cardinal memories to be read as "signs" to be assimilated purely and simply *as* signs (BT, 77). But in being synchronized, tertiary devices, which are always in part calendric, are also the conditions of access to the already-there and thus to the undetermined, since *Being and Time* clearly shows that this is never anything but the implementation of possibilities of false inheritance constituting the past of *Dasein* as history. This inheritance is obviously itself accessible only as a system of tertiary retentions constructing a world. It is therefore impossible to make a clean separation between time-proper and the time of calculation, diachrony of the undetermined and "having-being" and determinate synchrony, *Dasein*

and *One*; the cinemato-graphic projectivity of retentional flux that *is* time will not allow it.

Presupposing the need for just such a separation, simultaneously rejecting the cinema of adoption and the process of which it largely consists, especially as *modernity*, Heidegger assimilates documents and other traces into intratemporality, thus losing sight of the question of education as a retentional system.

Just what is the "existential" meaning of education in the widest sense? What analysis should we make of this specific modality of what might be called "instruction," which lies beneath the massive public implementation of mnemotechnics that are themselves constitutive of the public space of metaphysics in which one can utilize one's reason, through signs or signals, through the literal/literary use of mnemotechniques "before the entire literate world"?

The meaning of "public instruction" thus conceived, in addition to being one modality of the adoption process among others, is precisely the interiorization of a subjective principle of differentiation, which in turn means that it is the substrata allowing the implementation of such a principle, which is nothing without them—but which themselves are nothing without *it*. Literal/literary synthesis is the retentional milieu through which such substrata become possible.

What escapes Heidegger is that the confusion of mnemotechnics with technology begins with *contemporary* technology as the "completion" of the modern metaphysics of subjectivity: *Gestell*, as global domination of this metaphysics, is also the globalization of "the comprehension that being-there has of its being," in the mode of what I am referring to as the *age of malaise*. Heidegger does not see the direction of this evolution; he is blinded by his inattention to retentional processes and his inability to think through the process of adoption. It is also because he underestimates a colossal event—the mnemo-techno-logical confusion resulting from his inability to ask the question regarding education and the school, since the instituting of their mass programming is the very index of democracy, as a result of which he doubts that it could face the ontological challenges of technoscience.

Un-science. Summary and Reinterpretation of the Preceding

The time has come to recapitulate the paths we have taken in the preceding two chapters.

The technical system, having become global, is also and primarily a worldwide mnemotechnical system. We have seen that mnemotechnologies always determine the conditions of adjustment among systems that themselves determine society-to-come, in which the technical system must be seen as the primordial factor of dis-adjustment: mnemotechnologies either furnish or condition the retentional selection criteria of the flux of consciousness inscribed in the adoption process by which they are at once consciousnesses of an *I* and a *We*—and in fact of many simultaneous *We*'s.

In the current mnemotechnological confusion, calendarity and cardinality are integrated with each other, even while contact among human groups intensifies in decisive fashion, accentuating the general permeability that is expanding technical tendencies and thus the adoption process of lifestyles that are always new and increasingly shared. This has led to further confusion in these groups within the market that has become a true mnemo-techno-geographic milieu canceling public space in favor of spaces of commercial exchange for a pending globalized *We* whose unity, as always, is completely phantasmic—as always, but in a new, increasingly atomized sense, and correlatively felt to be menacing.

This new, phantasmatic horizon is opening onto an era that is a powerful trap: it is, without doubt, a new kind of cine-mato-graphy for a "We" that is more enigmatic than ever.

It is a "We" defined industrially, globally integrated into a new kind of transmission in which cardinality and calendarity, which are always devices of spatial and temporal *contraction* (the space of the map contracts territorial space just as cinematic or calendric time contracts the time it measures, celebrates, or narrates), are from here forward profane, commercial, industrial, and global instruments called upon to determine, through the canons of the new programming industries' retentional mechanisms, the (new) substrata of synthesis for the emergence of internal sense, and the orientation of external sense manifested there, since it is a given that there will always be retentional mechanisms supporting the syntheses in which consciousness is unified as flux.

The fact that modern philosophical thought cannot think calendric and cardinal mechanisms as the spatial and temporal organization of a *We* nor, more generally, the un-thought of retentional mechanisms, stands as a significant obstacle to the very possibility of analyzing the new commerce, and in particular the novelty, previously absolutely unknown, that is the global marketing of education. This block renders education systems themselves, as places of spatiotemporal acquisition and interiorization of the substrata on which they are founded (e.g., the principle of contradiction, synthetic judgments, analytic and experimental knowledge, etc.), unthinkable to the extent that a priori synthetic judgment is always subsumed into an a priori prosthetic system. Yet this prostheticity means that the industrial synthesis of retentional finitude brings consciousness as such directly into question, which is the result of this age of subjective philosophy defined by its opposition to objectivity: "modern" philosophy.

This "bringing into question" is possible because the flux of consciousness can only take place according to substrata delimiting the possibilities of that flow—of its retentional *coursing forth*. The consciousness beginning to be thought in the seventeenth century as the *I think* comes massively into its own in the nineteenth century, its substrata suddenly and necessarily interiorized through the rapid spread of public education, precisely during the *course* given by the *instructor* [*instituteur*] and then by the professor to young consciousnesses in their function of program officials. The organization of this national literary projection, before a public reconstituted as readers, constructs the new public space of modern industrial democracy around the institution of the school.

At the same time that consciousness was "taking its course," the educational system, as the mechanism for the interiorizing of the prostheses responsible for fabricating the history of knowledge and thus of the *We* as universal consciousness beyond national histories, was itself being brought into question as a result of the transformation of the technical system into a global industrial mnemotechnical system of retention. It was being questioned regarding the definition of its programs as much as the concrete organization of its courses, and finally regarding its mission as a whole.

International programming *industries* themselves tend to be substituted for national programming *institutions*. This effort, which was clearly displayed in May 2000 in Vancouver, and that is the primary

order of business for coming OMC discussions, within the framework of preparing the General Agreement on Service and Commerce, is the declaration of a new war of spirits and minds.

One absolutely negative aspect of this war could lead to an inconceivable catastrophe. What I am here calling the age of malaise is the expression of this possibility and, at the same time, a sort of blindness to the reality of what is currently at play in the theater of operations of what must be called, in the most literal sense of the word, a *global spiritual polemic*, with countless ramifications and an outcome that is completely incalculable.

But what do I mean here by "absolutely negative"? This is precisely my question, and one that must impose the greatest sense of patience on us.

The current educational system must be profoundly re-thought, to the point that it becomes the product of an age in which the mnemotechnical system is not integrated into a technical system that is itself neither global nor immersed in the market, that is not simply canceled in the public space. The political polemic between East and West that dominated the postwar period masked the real stakes of the *spiritual/mental* polemic going on within it, as we saw in Chapter 3. While in the course of this period the audiovisual programming industries made their first major appearance and then entered into competition with programming institutions, the school has only quite recently assumed its orienting function, guaranteeing the interiorization of the bases for the adoption process and the retentional instruments allowing the installation of projectional devices into the national future; that is, contracting national history, situating it in a wider "universal" history and in geographic space, and providing formal access to its moral, literary, artistic, and scientific spirit. Within the history of an intellectual *We* as a discourse on the universal course of things, this system of orientation can be, at the same time, the place of interiorization and formalization of the modalities responsible for creating the flux of the *I*, and the formation of this *I* as a *coherent* (i.e., knowing) flux.

As a program of restitution for the literal/literary synthesis of the flux of *past* consciousness as it passes through the play of the substrata of consciousness per se, the programming institutions cannot be sure that the educational system inherited through the revolutionary process of the Enlightenment thinkers and then the Industrial Revolution can still transmit the principles forged in the republican spirit of the *written* as the

basis of a "democratic" or "modern" country. But it would be perfectly cowardly not to admit it.

But such an admission would be completely in vain if it were not possible to speak theoretically and practically about the ways in which this system can no longer satisfy the needs of the *adoption* process, which we must quickly do here, as we hope has long been understood by the reader: that this has absolutely nothing to do with a process of *adaptation*. Adaptation is the factual state of animals or of animalized human beings: of slaves. Neither schools nor transmission mechanisms are parks, stables, or, as Gilles Châtelet would say, pigsties.[3]

The malaise in education resulting from a knowledge crisis of a completely unheard-of amplitude and radicality is itself perhaps more than a crisis,[4] and clings to the absolute singularity of technoscience relative to the philosophical possibilities of thought. This is the primordial nature of the current disorientation. We might say that this condition of quasi-catastrophe proceeds from a paucity of analytic criteria and synthetic theorems forming an epistemic structure of appropriated retentions, where the stakes are precisely to take account of the circumstances in which new retentional technologies appear in science, technics, technology, and investment, and in their connections that will become definitive, thus inducing what I am calling mnemo-techno-logic confusion.

Theorizing this process of rupture initially appeared in the retentional technologies of mnemotechnics in the course of the last few decades as an immediate task of thought that could not be conducted in profound ignorance of the course of the spiritual, mental, and philosophical history that had opened the possibilities of these evolutions. The principal risk of orientation and of the mechanisms of adoption that it supports (generally called "education") is in the eyes of all philosophy the imperative of the transmission of difference and of the conjunction of knowledge and non-knowledge, a difference we have assimilated as the subjective principle of differentiation, and as the condition of possibility of the adoption-interiorization of all criteria. Kant affirms the legitimacy of and the need for such a principle, and the educational system is assigned the task of making it expand through being practiced, for the staging and interpretation of its scenario by young minds forming their consciousnesses.

As for the harsh and urgent investigation within these questions as they impose the situation brought about by the acceleration of the processes described here, the advances of the existential analytic of *Being*

and Time are essential. What is more, these analyses (which ignore everything, and for reasons having nothing to do with forgetting) of the question of education as a question of adoption do not permit the thinking of a heritage as transmission and adoption of a difference through interiorization of tertiary retentions that are both spatial and temporal but in fact precede the space/time differential, and that form the projection surfaces for a principle of differentiation as a pre-existential formulation of ontological difference.

The question that must be examined at present, then, is that of knowing what is, *today*, the subjective principle of differentiation. And we will have to ask ourselves what connection this principle can have with what Heidegger calls ontological difference. Via this precipitous route we can take a glance at the heart of the crisis of knowledge, and thus at methods of transmission, focusing on the educational system, striking at the industrial age's un-science that is integrated into transmission as disorientation, in the face of new retentionalities. In any case, we could not refuse to examine the hypotheses of such an un-science, which is nothing but criteria in default (even a default *as* criterion); that is, any account that is both necessary and inevitable as the phantasm of a *We*'s unity. We make our principal hypothesis out of this.

In this case, the critique would consist first of all in knowing how to designate both this un-science and its necessity. It would consist, then, of defining the means of being oriented in it as the space of "darkness."

It is necessary here to return to the origins of modernity—and, through it, to the origins of the modern scholarly project—which will allow us to define what I am calling "science" and "technoscience."

Making Difference in the Desert

With Descartes and modern philosophy, a selfsame gesture establishes a new thought of technics as the power of mastery, and an opposition between a constituting subjectivity and an constituted objectivity, which have been the focus at least since Kant.

Since the beginning of the twentieth century, numerous philosophers have decided not to think in these categories, most notably in that they have rendered inconceivable everything that has happened with regard to what I am calling technology, which is effectively the reality that has engendered modernity: "technology" not simply designating technics.

In its broadest sense, technology *resists* being simply returned to the simpler level of pure objectivity, whatever aspects of its systematic and dynamic dimensions that appear to the senses on any given day—such that the designation "object" seems no longer to suffice for thinking it. If technics can be called objective in the sense that it appears (wrongly) to be essentially constructed out of objects, and of real, manipulable, functioning objects that are in this sense, like everything that could be called *technical materiel*, "objectifiable" and controllable through scientific methodologies of physics (calculations of material resistance, corrosion, tribology, fluid mechanics, aerodynamics, thermics, etc.), it is more difficult to reduce technology to a material reality than the subjective (i.e., Cartesian) master could be given in all its creative force as it is given, and methodically take objectivity in hand: it is well known that there is in technology a heterogeneous force that might be called techno-logical, a strange power (perhaps foreign) though completely human, even superhuman, increasingly difficult to control, whose dynamism puts it into apparent opposition to a different mode of subjectivity than the opposition of the subject to its object.

This feeling of foreignness generates fear, and, its object not being determined, this fear is not simply a fear: it is an *anguish*, the kind of anguish that always subtends the possibility of an unidentified evil. Whether expressed as such or dissimulated through a great variety of neuralgic behaviors and discourses of denial, this anguish is a typical trait of the current malaise.

But after the fact it seems that it is actually technics, and not just technology, that cannot be properly understood as objectivity, which is only determinable as such in its opposition and submission to what is not objectifiable, or better, objectifying. Yet I suggest that technics—as permanent retentional support—is constitutive of objectification as bringing-to-view of all objects, for example, as the process of idealization in the geometrico-Husserlian sense of the word and, beyond that, of all ideation. "Subjectivity," as posited by modern philosophy as the ground of certainty (that is, as its basis), means that the subject is the autonomous, originary, and absolutely pure source of its objects, and that it constitutes and thus masters, dominates, and wants without their constituting it in return.

The place I have given to tertiary retentions differs from this way of thinking. These retentions form a retentional milieu that is materially

objectifiable, even though the category of objectivity remains insufficient for thinking it, and thus industrializable: it can be subjected to calculation. But this calculability, which tends to reduce what cannot rightly be reduced to the status of the objectifiable, still appears to be at once:

—what is not just allowed but rendered necessary by the materiality of retentions that are also their permanence, i.e., what confers on them the status of substrata of temporal flux;

—what is incompatible and thus contradictory if it is brought to bear without limit and for itself, along with processes of individuation—of "subjectivization"—which in principle provides support for a retentional milieu;

—what can thus produce a generalized entropy.

The true matter is, then, to know the terms for thinking a *difference* that would serve to regulate all forms of calculation but that could not themselves be the object of that calculation, and without which there would no longer be any possible criterion of orientation within this area of becoming other than calculation itself—other than a growing entropy—or what Nietzsche calls *the desert*.

This neguentropic difference, which cannot be a simple opposition, is a relationship in which the terms of the relationship itself are composed, and in which that relationship would disappear if the terms were confused. This relationship is necessarily dynamic, activating the composing—without confusion—of the *who?* and the *what?* of the probable and the improbable, the synchronic and diachronic, calculation and undetermined, perception and imagination, *I* and *We*, past and future, future and to-come.

This kind of difference is irreducible, perpetuated beyond the abandoning of oppositive relations and the metaphysical terms encountered there; it is the kind of difference that is threatened in what Adorno and Horkheimer call "reification" (but which they nonetheless still cannot think, precisely because they remain within the context of simple opposition), or what Marx calls "alienation."

If we were to claim that we think and *desire* that this kind of difference remains strictly irreducible and that it rules, this is because in fact it *is not*, and that it is thus strictly necessary *to make it*. It is what we feel is menacing us when marketing merchandises consciousness—if we can accept the creation of the verb *to merchandise*, on the model of *merchandising*. This undifferentiation is the logical follow-up for the transformation

of the bi-pole subject/object coupled with consumer/product—where the "producer" disappears.

This undifferentiation within modernity defines both the movement, initiated by modern philosophy, asserting the difference between subject and object, and the process of social transformation within the industrial revolution, itself rendered possible through the birth of subjectivity in the age of a consciousness thinking itself as such, but that reverses the departure point and undifferentiates subject and object. A true understanding of this evolution and of the singularity of its current situation is thus first of all an understanding of modernity as their source.

Difference as Invention

The historical link between technics and objectivity begins with Descartes, who, thinking within the framework of representation, constructs subjectivity as the power of mastery over nature through an objectification in which knowledge, as method, is the *mathesis universalis* and whose instrument is technics. This knowledge is itself a power, but it can only achieve mastery precisely because this instrument is itself objectifiable—meaning that it cannot be objectifying: it does not participate in the construction of the *ego*. All systems of thought from Marx to Heidegger and beyond (passing through Nietzsche) that are opposed to this inaugural "modern" viewpoint (thinking thought through subjectivity) will contest the discourse of mastery and possession that, as the *will* to mastery, was the central focus from Descartes to Hegel.

In this long tradition, which is obviously not as clearly marked by rupture as I have suggested (for example, Marx is still held as a figure of mastery even though he wants to dispense with subjectivity in thought), Husserl occupies a singular position. Cognizant of the nascent field of experimental psychology when he was sketching out the *Logical Investigations*, he already believed that a certain "technologization" of the institutions that had originated in Greece had to be resisted, which he makes explicit in the *Crisis of European Sciences*: technology is a topic of primary importance to phenomenology. Husserl's major concept, grafted onto Brentano's central idea (intentionality), will become the lever in Husserl's struggle against what he considers to be the forgetting of the originary intuitions of science: lived experience. The lived nature of consciousness is the constitutive flesh of the process of ideation and idealization, and through them of objects themselves.

Heidegger is the first to explicitly deconstruct, systematically and patiently, the metaphysics of representation, as the opposition of subjectivity to objectivity, and he does it in a discourse on time that revolutionizes all of ontology. This gesture is, in Heidegger's own eyes, the outcome of phenomenology, and at the same time a rupture with it: he inherits from Husserl while departing from him on the very question of the lived. Because in the end for phenomenology it appears absolutely necessary (inevitable) to introduce the "non-lived" into subjectivity, the very concept of subjectivity as such breaks down: as a philosophical concept, subjectivity is self-grounding, and it is just this that ruins the constitutive role of the non-lived that opens to the thinking of the existential—of what ex-sists or, better yet: of what is originarily outside the self.

This is why I claim in *Technics and Time, 1* that *Being and Time* is a critical commentary on Husserl's *On the Phenomenology of the Consciousness of Internal Time*: Heidegger's claim in § 6 that "*Dasein* does not follow the past, but always preceded it," and his affirming, as a corollary, the privileging of the future in this temporality in which it is the present as such, and along with it the presence of the crumbling subject, Heidegger transgresses against the *Logical Investigations*' fundamental assertion, the knowledge that the originary constitution of temporality requires a radical differentiation of the three forms of retention. Husserl excludes tertiary retention from the temporal sphere because the possibility of empirico-transcendental sharing depends on so doing. And this possibility, according to Husserl, rests on the exclusive privileging of lived experience: of the living present.

Heidegger *seems* to introduce into this construction process what would for Husserl already be constructed, since *Dasein* is nothing but a process of inheritance: *Dasein* is preceded by a past that is already there and that therefore has not been directly lived, that is *to be* and to be made one's own; that is, to be "adopted." However, this empirico-transcendental sharing is finally maintained in *Being and Time* despite the assumptions made in § 6: it is a retreat before the question of *Weltgeschichtlichkeit* in §§ 73–75, where Heidegger finally excludes the retentional mechanisms constituting the objective traces of the past from the originary sphere of temporality, mechanisms with historico-technical (i.e., empirical) modalities, at the same time denying that inheritance is an adoption.

By refusing to grant constitutivity to the removable supports of the

past that were not directly lived, and that render the non-lived accessible to lived experience, to retentional mechanisms, Heidegger attempts to rescue the transcendental he calls the originary aspect, proper and ontological, of the empirical that has become at once the ontic, calculation, intratemporality, and thus all forms of technicity that are never, for him, only instrument cases or agents for time measurement—though time is the incalculable undetermined. And he neglects an essential part of the terrain gained by this "existential reversal."

Yet Heidegger is also the first philosopher who thinks the object—the *technical* object—without referring to objectivity. In the Heideggerian vocabulary, the objective is *Vorhandenes*. What happens "initially and for the most part" in the face of *Dasein*, and which for this very reason is not a subject, is *Zuhandenes*. *Zuhandenes*, which always refers to other objects, constructs the in-the-world-ness of the world, a worldliness that is essential to *Dasein*. And this is why *Dasein* is not a subject: while it constitutes the objectivity to which it owes everything and to which it owes nothing, the *Sein* of this Da-sein is only *da* in being affected originarily by its in-the-world-ness, whose truth (as heritage) is the already-there as the unlived past and that had already previously occurred.

This non-"objective" object is the *what*. The *Dasein* facing it, originarily affected by it insofar as it is its exterior, insofar as it puts this *Dasein* outside a self that is not "subjective," is the *who?* But contrary to Heidegger, and yet following from his own analytic, my claim is that what links the *who?* and the *what* is a tenuous relationship, but one that is in no case an opposition whose precise balancing point would be *Verfallen* (finished, forfeited, expired). This relationship is pros-theticity; pros-thesis means "posed before" as both "posed in front of" and "posed in advance of." Such a transductive relationship, in which one meaning must be held constitutively in tandem with the other, is a negotiation.

But a negotiation of the *who?* with the *what* requires a criteriology of the *who?* that is very clearly constituted *through* the *what*. This is a difficulty, and one whose meaning is that such a criterion is retentional in the sense that it is the interiorization of a principle of differentiation interiorizable only because

—it is *already* in the *who?*

—it must be *invented*, exhumed from the *who?* and through it in the course of an exteriorization that makes an interiorization necessary.

The difficulty relates above all to the fact that this strange gambit, and it certainly is the play of an after-effect, is however not merely a succession of moments: interiorization does not inevitably follow exteriorization, it *is* exteriorization, and it is only in exhuming the principle of contradiction from it—that is, in *inventing* it—that it is (re)constituted in principle. But the principle of the already-there does not precede its formalization, which would only be possible if it were the already-there *stricto senso*. In this fabulary and performative structure, it is as though Thomas Jefferson invents the good American people in signing for them, in their name and retroactively. But we can clearly see that this fabulo-performative dimension is at work in technoscience *permanently*, in its very grammar as the stakes of the spiritual/mental war that *is* the modernity born in the seventeenth century, giving rise to the social theater in which what for Wittgenstein is the first-person singular is invented as its foundation, marking the triumph of typography.

This fabulary structure absolutely does not mean that the principle of contradiction is a fable or an invention in that sense. It means that its legitimacy is ideal, and the ground of a right, and in fact undecidable, and that the leap from fact to law is also as inevitable as is the irreducible abyss hovering between them—this is an abyssal relationship.

This strange play that crosses—and constitutes—logic, technoscience, and grammar is also primarily one of the adoption of a to-come. In claiming that the *I* appeared in the seventeenth century in the typographic world, I am asserting that it constitutes an adoption through the *We* of the process of becoming within the new retentional mechanism emerging as the public space of *printed letters* that in the following century will come to be called "the republic of letters." This will mean that adoption is not a simple *adaptation* to becoming, but its projective transformation into a possible future as the implementation of a criterion that has been "invented" in the sense that it is projected onto the retentional screens forming the machinery of its time, and where it takes form as the working out of a differentiation principle that had already been there "on the inside" but that is only effective by rights if it is returned, in some way, from outside. This last affirmation, which must remain enigmatic here, will become clear in what follows.

Becoming, Future, Un-difference

We have been considering adoption as a process of protean interiorization by which I can affectively adopt/interiorize a cat, a child, a father, or in a *moral* sense a maxim, *religiously* a belief, *technically* a tool, *socially* a lifestyle, *politically* an idea of a *We*, *epistemologically* the understanding of a rule—adopting/interiorizing here means exteriorizing: my emotional affect, my moral behavior, my religious practices, my technical gestures, my way of life, my convictions, my actions, the carrying out of a rule as the concept synthesizing a diversity.

Becoming is not future, I might say with regard to the question of adoption, which is also necessarily fabulation. This means that adoption is not adaptation, since it is invention. An adoption without invention is the failure *and* the enticement that engenders deception and malaise, as reactions compensating for a flawed action.

The fact of becoming is today essentially a technological fact. In the human domain, becoming always has something to do with the technical fact that preceded genetic origins of humankind, and that is in fact as old as the cosmos. If it is true that becoming consists of a group of changing states linked by cause/effect relationships, there can hardly be any doubt that the totality of these sensory changes defined as "beings we are ourselves" is today largely and manifestly determined by changing technological states. If the to-come is not the future, there is no future without the to-come, but there is a to-come without future.

The to-come without future is called the *mechanical*; the confusion of to-come and future is called the *mechanism*.

The to-come, which is today in its broadest tendencies the fact of technology, is subsumed to technoscience as an activity conceiving, in an ever-narrowing relationship with marketing, the evolution of technology—while submitting to the systematic dimensions of technology as they emerge from a technical system as it becomes mnemotechnical.

This to-come is what today is not being thought, not only because technics, as the dynamic process of individuation, is still largely ignored (despite the work from which *Technics and Time, 1* and *2* tries to draw lessons), but because technoscience itself is not it, even while it is an instance of the effective implementation of retentional criteria.

This un-thought is not un-identified in the sense in which something forgotten is not thought: it is largely thought and felt to be unthinkable,

and this is why *as such* it forms the very core of the anguish of malaise, closing perspectives to knowledge while enclosing them within the agitated know-how of a badly thought technology.

The opposition between technology and subjectivity still today inhabits the banal framework in which anguish and malaise are expressed in the form of increasingly invasive and anguished chatter. It can only be thought *beyond*, passing by Husserl and Heidegger in their difficult relationship to Kant, while coming slowly back to us through Nietzsche. In "subjectivity," we must come to understand—beyond representation as conceived since Descartes and beyond the banal, poor opposition to objectivity that must be transcended—the *will* to which we hold beyond this subjectivity.

While breaking with the discourse of mastery, none of the philosophers named above abandons the question of the will, though an abyss opens out between knowledge and power, an abyss in which technology is suspended as the occasion for implementing retentional criteria on the side of this unknown power, the will. Nietzsche is the great interrogator of power, as technical power becomes a capitalistic and technological industry, asking: what do "we" want? This "we" is called into question by the question itself. And it suffers from it: it is called to the question of its malaise by its "unknownness"—by "unknown" I intend *what must be decided without knowledge*—concealing the "question of being" that, according to Heidegger, constitutes the very existentiality of *Dasein* in its widest sense, and then the main idea of "the history of being."

In brief, then, this "we" is the one who becomes deaf to "ontological difference" but who always *wants*, and who suffers from not having the power to not want, while it does not know what it wants.

Real and Possible Between Kant and Heidegger

Ontological difference manufactures the question of being for a singular human, who is not called "man" by Heidegger but "the being we are ourselves." The malaise of "we" is ontological *in*difference, a hegemonic process of selection through calculation that cancels ontological difference even as it signifies that "being is not human being." This means

1. that it is not thinkable through the living being *vorhanden*, "in hand" in the sense of "calculable, objectifiable, objectified";

2. that it is essentially an *original knowledge* ("an originary, vague

understanding that being is a fact") that is also an original non-knowledge, a *question* (without any final—i.e., *probable*—answer);

3. that *Dasein* responds to this *question*, to what it has *in charge* as a singular being, which is not calculable nor objectifiable nor objectified even if it collapses into its reification and its auto-negation; that is, into the determination of its indeterminacy, its singularity as *One*;

4. that this question to which *Dasein* responds, the question of being, constitutes the very *temporality* of this *Dasein*;

5. that *being is epochs*, *epochality*, suspensions, interruptions, ruptures.

Throughout the ages of being, *Dasein* is the living being *who* responds to being in responding to "his" having-being, a free being as being open to the indetermination of the future that, throughout "his" future, is not solely "his" but what responds to the future of being—to the liberty of being within ontological difference: that which is free of *not* being the living being.

This is also to say of not being the *real*, to speak like Valéry,[5] but *rather the possible*.

Being the possible rather than the real, which is a "will," in the non-subjective sense, that Heidegger sometimes refers to as a "resolution" (*Entschlossenheit*), requires a criterion, a principle of differentiation. This is what both Kant and Heidegger saw in the question of orientation. But Heidegger's principle of differentiation is a reversal of Kant's, principally in that the order of the relationship between possible and real is inverted.

For Kant, the possible is imposed relative to a real that is objectivity as substantiality. Objectivity is certainly what the subject constructs in the unity of apperception, but this unity conforms to reality as the unity of all possible phenomena as grounded "in the existence of a sovereignly real (supreme) being" (AP, 80); that is, God.

For Heidegger, who in a sense thus follows the Copernican reversal to what seems to be its furthest extreme, it is the real that is imposed on a possible that is the *Dasein* itself, as what "is" its "possibilities" relative to "its most extreme possibilities," knowing its proper end to be "having-being":

> Even when it is not only a matter of ontic experience, but of ontological understanding, the interpretation of being initially orients itself toward the being of innerworldly beings. Here the being of things initially at hand is passed over and beings are first conceived as a context of things (*res*)

> objectively present. *Being* acquires the meaning of *reality*. Substantiality becomes the basic characteristic of being. Corresponding to this diversion in the understanding of being, even the ontological understanding of *Dasein* moves into the horizon of this concept of being. Like other beings, *Dasein* is also *objectively present as real*. Thus being in general acquires the meaning of *reality*. Accordingly, the concept of reality has a peculiar priority in the ontological problematic. This priority diverts the path to a genuine existential analytic of *Dasein*; it also diverts our view of the being of innerworldly things initially at hand. Finally, it forces the problematic of being in general into a direction which lies off course. The other modes of being are defined negatively and privately with regard to reality.
>
> Therefore, not only the analytic of *Dasein*, but the development of the question of the meaning of being in general must be wrested from a one-sided orientation toward being in the sense of reality. We must demonstrate that reality is not only *one* kind of being *among* others, but stands ontologically in a definite foundational context with *Dasein*, world, and handiness. (BT, 187)

This derivation emerges from being-toward-the-end as *Dasein*'s "most extreme possibility":

> Death is a possibility of being that *Dasein* always has to take upon itself. With death, *Dasein* stands before itself in its ownmost potentiality-of-being. In this possibility, *Dasein* is concerned about its being-in-the-world absolutely. Its death is the possibility of no-longer-being-able-to-be-there. When *Dasein* is immanent to itself as this possibility, it is *completely* thrown back upon its ownmost potentiality-of-being. Thus immanent to itself, all relations to other *Dasein* are dissolved into it. This nonrelational ownmost possibility is at the same time the most extreme one. As a potentiality of being, *Dasein* is unable to bypass the possibility of death. Death is the possibility of the absolute impossibility of *Dasein*. Thus *death* reveals itself as the *ownmost nonrelational possibility not to be bypassed*. As such, it is *an eminent* imminence.
>
> The ownmost nonrelational possibility not to be bypassed is not created by *Dasein* subsequently and occasionally in the course of its being. Rather, when *Dasein* exists, it is already *thrown* into this possibility. (BT, 232)

The in-the-world-ness in which the being *vorhanden* (i.e., objectifiable) can be found belongs to *Dasein* first as the *zuhanden* mode of being, as the world and its proper existential possibilities, approached from and oriented by a preoccupation into which the mortal has been plunged

in advance and that precedes all of its goals for being. This being is *vorhanden* for *Dasein* only in a derivative sense: not in its original mode. This derivative mode is the one I am calling the "objectivity" of "reality." This is why the thought of subjectivity makes the being *zuhanden* unthinkable.

Heidegger blames Kant for not seeing a horizon of in-the-world-ness usable as a criterion for orientation that is for Kant, as for Heidegger, a question—the question of ontological difference such that it *must be done* since it is what "in response" means.

But we have seen that Heidegger in his turn completely neglects the constitutivity of retentional processes, their originary reconstitutivity, that I have also made reference to in analyzing the synthesis of recognition, of repro-ducibility, that does not itself go to the conclusion of its own critique, nor to the furthest extremity of reversibility, nor to the end of the question of "doing" that would require a difference itself grounded in the reversal of the relations between real and possible. This is also the question of what it means *to do* beyond this impoverished—yet respectable—doing that is preoccupation. Thus the critique of Kantian subjectivity turns on the existential analytic.

What Kant Is Aiming at Through the Subjective Principle of Differentiation. Necessity and Belief

We have seen why Heidegger recuses himself from the analytic-allegoric through which Kant introduces a subjective principle of differentiation as an orientation criterion: this *subjective* principle is precisely what prevents the thought of ontological difference, since it dissimulates that in-the-world-ness is already contained in spatiality; to this, I add—retention. And that means that it relies on the privilege of substantiality.

What is more, we still do not know what Kant is *aiming at* with this principle, nor certainly why it is necessary for the orientation of the subject *in thought*, beyond (1) ideas of reason that unify under the use-principles of the categories of understanding, (2) all those subsuming intuitions of sensibility into their concepts, and (3) the three syntheses producing these concepts.

An effort to understand them might perhaps begin in an effort to discern the motifs for which technoscience, remaining structurally unthinkable in the Kantian framework, requires the analysis of projectivity

(of the possibility of a future) as a retentional montage—requiring, as techno-science-fiction, the problematizating of a criterion.

The principle of differentiation is the criterion needed by reason, in the case of an un-science in which it must make judgments without laying out an objective knowledge by which to conform its judgment to an object of its intuition. There are numerous cases of this kind, Kant says, that are generally specially concerned with the possible and not the real, and that are of absolutely no interest to reason, other than as curiosities appearing only in the wake of daydreams that in the last analysis are merely prejudicial:

> The objects of the senses, not exhausting the entire field of the possible, one could conceive of many suprasensible objects, without reason's having the least need of elevating them, and even less of admitting their existence. . . . Rather, one could move toward the use of reason through some supposition of this kind. This is never a need that is explored in such researches, or at play in fictions of this sort: it is merely a pure and simple curiosity, succeeding only in *daydreams*. (AP, 79)

On the other hand, there is a similar case in which reason cannot *not* judge. This is a case in which suprasensible things constituting a "space" of "darkness" must be judged, a space at whose core it must nonetheless be possible to be oriented simply and precisely because there is a constitutive need for it:

> It is completely other than the concept of the first beings both as supreme intelligence and sovereign good. Our reason is not content with testing the need to posit, along with the principle of the concept of all limited beings the concept of beings without limits. This need takes it to the point of admitting its existence. (AP, 79)

According to which criterion could it be oriented in its judgment, lacking the ability to establish a connection to any real object, understood here as temporal, spatial, given to intuition, since reason cannot give itself to itself, not being *intuitus originarius*?

Very audaciously, Kant claims that this criterion *is* this need for reason itself: its need to judge in such matters, and its need "to be satisfied." Reason *can* judge here, by the very fact that it needs to do so. This need, which is only a criterion insofar as it is *reason*'s criterion and not that of the inclinations of feeling, is a *feeling* exactly because reason does not

feel: "Reason does not feel: reason knows its insufficiency and as a result produces, through the propensity to consciousness, the feeling of a need" (AP, 71). This feeling is that of insufficiency, of the inductive default of a "tendency to consciousness," if not of a curiosity about fictions. This non-sensible feeling is an affect, a *love* of knowledge or a *desire* for reason—that cannot be posited as a principle but as a good regulator, conforming to the vocation of reason in general; therefore we can have confidence in it. We must have confidence in desire and a love of knowledge without knowledge.

It is necessary to *make* confidence in this default, says Kant: we can do so because we must. This default is necessary [*il faut ce défaut*]. Diotima, in the *Symposium*, already says so to Socrates in his own way, and we will have to pay attention to this. This default is necessary, we need it, it *is*, as limit, an ability to reason, and at the same time we must have confidence in it: it gives us desire and love; it gives us reason itself, knowing its *motif*, that sets it in motion, this "actor" who says: "action!" like a great film director. It is for this reason that Alexis Philonenko is correct in claiming, against Reininger, that this need is not an *attribute* of reason, that reason does not *possess* this need but *is* it.

Reason *is* what is made to default. Reason is a necessary default [*un défaut qu'il faut*].

Reason, as a sensible being enclosed within a beginning and an end, must be capable of taking the risk of prolonging experience somehow, both backward and ahead, through a capacity for projection, we might say a cinematic projection, without any objective nor real data in the sense of sensible. Backward, it must be able to take the risk of conceiving origin; ahead, it must be able to risk conceiving the end. And in both cases it finds the same thing: God, as absolute past mirroring absolute future of the end of everything.

God-as-origin is the suprasensible real as totality of possibilities. It is a need for reason "to posit the existence of a being who is sovereignly real (supreme) as the ground of all possibility" (AP, 80), or else to posit as "unique possibility . . . that of unlimited Being, as originary principle, and to consider all other things as derivative." The real here "deriving" all possibilities is all the more real (supreme) as reason needing to project or retroject it, to project it backward as if to precede all possibilities. This suprasensible reality is the condition of possibility for all sensible reality in existence or to come—i.e., possible.

We will see shortly that this origin is also a function of the absolute past, and paternal, such that it needs tertiary retentions, about which Kant says that if we do not have from the outset—a priori—the principle of the need of reason, these retentions will signify nothing: this is the focus of Wizenmann's polemic in which faith is possible only through an "external revelation" such as a witnessing of Text, such as the Testaments, which are unique retentional mechanisms (AP, 46), to which Kant responds that such a revelation is possible only for those who already possess a principle of subjective differentiation.

God-as-end is the order of Nature, finality that pays witness to a supreme intelligence whose reason cannot be surpassed. "Unless admitting an intelligent creature": this absolute past, as origin, is a mirror image of the absolute (noumenal) future of phenomena, the order and pathway of things in their unconditional causality, "we would not know . . . to give the least intelligible reason [of this order and this finality in nature] without falling into pure absurdities" (AP, 80). This hypothesis is impossible to prove, however, as rational as it is, by any determinant judgment. God is improbable as finality in general, being only what gives direction to a reflection, a reflecting judgment, which means here literally specular, projected through a mirror effect. We must *believe* in it since belief is "the subjective non-feeling that is satisfying but objectively linked to consciousness of its insufficiency."

Reason is itself a necessary default, a *défaut qu'il faut*: a capacity to be moved, to be put into motion; a liability (as Lyotard would say) in the sense of debt or lack, that can and must be moved by what, in another time, might have been called an unmoving prime mover (who or that is impassive if not absolutely past). In whatever sense one considers it, reason needs to believe in the unity of flux of phenomena, of their aggregation, their sequencing; it needs to believe in the default of knowledge—an affirmation that scandalized Hegel, who wanted philosophy to "lay aside the name of love of knowledge and be actual knowledge" (PS, part 2). It needs to believe in them in order to be able to project them, to *order* them according to a process of unification as highly improbable as that of apperception and that affects the *I* just as much as the *We*.

What is no more than a hypothesis for theoretical reason becomes a postulate for practical reason—the reason of *We*, which cannot *not* put forward this *criterium* as the compass for the actions of this phenomenon that must ceaselessly *decide*. Reason's need, in its practical application,

"is unconditioned, and thus we are no longer constrained to presuppose the existence of God 'if' we are to be judges but because we 'must' judge" (AP, 81).

But in an age of technoscience, this wall between theory and practice is very problematic, while the need for its being oriented according to a principle of differentiation within the dark regions in which reason necessarily speculates and fictionalizes is reaffirmed in a genuinely disruptive sense.

The meaning of the Allegory of the Cave is to allow for the passage from an orientation in the mathematical space of experience, founded on the subjective principle of differentiation among phenomena, to an orientation in the logical space of thought growing out of a subjective principle of differentiation in noumena.

> This will be a question of the function of pure reason: of what regulates its use when, on the basis of known objects—of experience—reason seeks to be elevated beyond all limits of experience. (AP, 78)

In order to do this, reason, which has no "positive maxim," is obliged to "ground in a subjective principle of differentiation" the feeling of *need* inherent in reason." And what is this "need"? Reason encounters it

> when it in no way requires us either to want or not to want to judge (when on the one hand it is a real need and, as such, inheres in the reason constraining us to judge, but that on the other hand also, the insufficiency of our knowledge limits us with regard to the elements necessary for making a judgment)

and that, in order to judge, reason, wanting "to be satisfied," but not having at that level

> any intuition of an object, nor even anything resembling an object, . . . we can only begin by examining the concept . . . to see if it contains any contradiction. Then we must . . . submit to concepts of pure understanding the relationship between such an object and objects of experience.

And does not this need "constraining us to judge" in spite of the insufficiency of our knowledge have something in common with we saw in Valéry? Reason lacks itself, lacks completeness, attainment; it is defaulted yet "wants to be satisfied" beyond its empirical satisfactions as

> man . . . contains what is required to be dissatisfied with what satisfies him. He is at each instant something he is not. He does not form a *closed* system of needs, nor of the satisfaction of his needs. He draws out of satisfaction who knows what excessive power reversing his contentment. Hardly has his body and his appetite been appeased than at the deepest part of him something is agitated, tormenting it, illuminating it, commanding it, urging it on, secretly manipulating it. And this is Mind, Mind armed with inexhaustible questions. . . .
>
> Man is . . . what he is not, and the instrument of what he is not. He is, finally and above all, the mysterious author of his dreams, about which I have been speaking to you.[6]

While Kantian reason does not have time to waste on dreams, for Valéry, the human spirit, or the Mind as inhabiting human being—which is certainly not reason, and still less reason as Kant conceives it—is essentially dream. And technics and war, as will become clear.

If what is essentially dream for one is vain curiosity for another, in both cases it is fictitious. But Kant claims that there is a fiction (regarding a strict objectivity) in which one cannot do otherwise than to declare it, as the origin and the end of all phenomena (and thus as the supreme real), to be the source of all possibility. The subjective principle of differentiation leads to the classification of fictions in order to orient them toward and from a literally functional supreme real, an apparition, what I have called a necessary and inevitable projection toward the unification of a flux, specifically the flux of a *We* that is somehow delegated through the universal and has an even larger sense here: the flux of the unity of the totality of phenomena in general.

We live, we who write and we who read these lines, in an age in which "order and finality" in nature have become an-objective concepts, "cultural curiosities" anticipating the "death of God," residual metaphysical fantasies within the sciences and consciousness: we live after Lamarck, Paley, Darwin, genome-sequencing machines, and all the molecular biologists who have shown that this order and disorder that interest Kant as much as Valéry (even though Valéry, who comes on the scene after the thermodynamics he knew so well, gives these words a completely new and current meaning) are the statistical phenomena playing with one another and against one another, tendencies engendering entropic and neguentropic dynamics having no need to "admit an intelligent creator."

One could certainly show that it is not as easy to be divested of these

questions regarding the unconditioned in Kant, and to recall that this text, *What Is Orientation in Thought?* is exoteric, arising from popular philosophy; it is at best preparatory to reading the *Critique of Judgement*, where he says, "let the concept determining the causality be a concept of nature, and then the principles are technically practical; but, let it be a concept of freedom, and they are morally practical."[7]

But let us leave that behind. We must now call attention to the fact that the clear split between theory and practice Kant considers to be a precondition and that operates in full assurance is the expression of a conception that today has become completely null and void in science. Philosophy, as well as contemporary science (that is, knowledge in general), and behind them, politics, will in the end suffer the most disastrous consequences: well beyond this particular historical juncture in philosophy, it will be the ongoing question at the very heart of the malaise in a technoscientific age. In order to develop this point, we must first invoke Aristotelian phronesis, as he lays it out in the *Nicomachean Ethics*, chapter IV, book VI, in which Aristotle quotes Agathon's verse:

> *Tekhnē* loves *tukhē* (*tekhnen tukhen esterxe*) as *tukhē* loves *tekhnē* (*kai tukhen tekhnen*).

What does this citation mean?

§ 6 Technoscience and Reproduction

From Real to Possible: Technoscientific Disruption

Tekhnen tukhen esterxe kai tukhen tekhnen.[1]

Citing Agathon, Aristotle asserts that technics belongs to the domain of contingency, as opposed to scientific necessity. This viewpoint is obviously incompatible with the very idea of technoscience, whose name itself indicates the collusion between technics and science. Technics thus catalyzes a disruption in the order of things regarding the relationship between necessity and contingency, and thus also, as we will see, between real and possible, being and becoming.

We will also see how modern thought simultaneously deviates from the ancient viewpoint and preserves this play of opposites, making any singular, unified thought of technoscience quite impossible; consequently, it appears as a *mind-begotten monstrosity*.

Aristotle defines the contingent as "*to endekhomenon allōs ekhein*," translated by Pierre Aubenque as "that which can be otherwise than it is."

> To take action and to produce is to insert oneself in some fashion into the world-order to modify it; it is thus to assume that this order, given that it offers such latitude, contains a certain play, a certain indetermination, a certain incompleteness. Action's object, then, like that of production, belongs to the domain of that which can be otherwise. But if the propensity to produce within rules is called art (*tekhnē*), the propensity to take action (*praxis*) within rules is called prudence.[2]

Actions of (moral) *praxis* and the production of (technical) *poiēsis* together

comprise the domain of "that which can be otherwise than it is": neither the one, *praxis*, nor the other, *tekhnē*, can be science. *Tekhnē*—which Aubenque (like all of tradition) translates incorrectly as "art," but that I am understanding here as what the original Greek gives to immediate comprehension, "technics," needing no additional contortions—*tekhnē*

> always concerns a becoming, and being applied to an art [i.e., a *tekhnē*], is to consider the way of bringing into existence one of those things that can be or not be and whose principle [of existence] rests in the producer and not in the thing produced.

In *Technics and Time, 1* I comment extensively on this last point, or rather on its equivalent in Aristotle's *Physics*: no dynamic *proper* to technics exists for Aristotle, any more than for any other metaphysician—nor thus for Kant: this is their common feature.

Since the Industrial Revolution, "technical becoming," on the contrary, has compounded its systematic dimensions, becoming visible to the naked eye in various ways and sensible to the bodies and minds devastated by an entire universe of hellish machines, given that technical becoming operates through an evolutionary logic endemic to this dynamic system *as* a "*technoscientific* age" defining itself through a process of what would correctly be called "technical *individuation*"—Simondon's word for the process of *concretization*, supplementing Leroi-Gourhan's "technical tendencies" and Bertrand Gille's "technical systems." The concretization process, including the morphogenesis of industrial technical objects, controls not just the becoming of the object itself but also of technical assemblages, and thus, in the end, henceforth (as we have already seen), the global mnemotechnical system itself; i.e., the mind's retentional milieu.

The Industrial Revolution created a dynamic unique to technical beings and to what I have called the reign of the organized inorganic. This dynamic has become possible at this particular historical moment for two reasons:

—on the one hand, archaeology and paleontology began to emphasize that the evolution of even the oldest artifacts can be traced through formal lineages that are comparable to those of the beings that are discernible in contemporaneous fossilized skeletons;

—on the other hand and most importantly, the complicity between technics and science during this technoscientific period, which has been produced by and given rise to industrial technology, has opened an era of

permanent innovation in which the evolution of technical objects, now suddenly accelerating, becomes "modernity" itself, foregrounding the problem of the adoption of ever-new industrial products.

The co-operation of technics and science in complicity with industry, then, has become manifest, bodily and mentally, through the dynamics *inherent in* technology and technics.

This is precisely what Aristotle, as a Greek philosopher, cannot think. Contingency is what "can be or not be," which "must be understood not as a region of being but as a certain negative property affecting natural processes" (PA, 66). This means that technics ontologically (and therefore primordially) locates science as "ignorant" savoir faire, unskillfulness, as opposed to apodictic knowledge:

> Aristotle's intention is not to oppose it [*tekhnē*] to a haphazard and contingent empiricism but on the contrary to science, which Aristotle reminds us deals with what cannot be otherwise. . . . In a world perfectly transparent to science, one in which nothing can be otherwise than it is, there would be no place for art [technics] nor, more generally, for human action. (PA, 68)

This is why "*tekhnen tukhen esterxe kai tukhen tekhnen*": technics loves contingency, loves *chance*. As Aubenque says, "in order to follow this train of thought, it would obviously be necessary to free oneself from the *modern* mind-set, which tends to see in technics an *application* of science"; this is what separates Kant from Aristotle: this "modern mind-set," catalyzed by Descartes, is meaningful according to Aubenque "only because modern science by its nature pursues multiple causal series whose diversity even contains an element of contingency and thus a possible field for human activity" (PA, 69). Such an assertion would be quite audacious were *modern* science to be identified with *contemporary* science—as too-hasty minds will be tempted to do. Conventionally, modern science is associated with the Newtonian age that begins with Galileo and Descartes and ends with Kant, Lavoisier, Volta, Carnot, and Lamarck, in which the case for the conventional assertion would be a compelling one, particularly in terms of biology.

But what I am calling technology, which is in fact normally thought of as science applied through technical methods,[3] results in the opposite—a disruptive reversal through which it is science that becomes an application of technology, not technology as applied science. Science as applied technology produces formalized results that are thus duplicatable,

reproducible (generally through automatisms), bringing about a specialized universe of automatic reproducibility, even while it is no longer at all obvious that *contemporary* science, as technoscience, is prepared to *follow* apparently causal series: it utilizes them, diverts them as a waterway might be re-directed by modifying the direction of flow of its course, and indeed in the very quality of its water, which is generally quite rapidly depleted as it proceeds.

Biology, as I treated it in *Technics and Time, 2*, can create *new* causal series by altering extant models of causality, even completely re-making it within a newly pertinent context or, more precisely, by disrupting the play of "laws" by which certain entities are defined, or by redefining these entities' conditions of reproduction, given that their principal characteristic is precisely reproducibility; it is not at all by chance that this (biology) is the very point at which technoscience is potentially the most disruptive and disturbing, particularly since it is already a matter of retention, and of a quite specific kind.

And indeed the question of reproduction (and, necessarily, then, of retention) in its very broadest sense and as a *first condition* for industrialization, governs the logic of what I am calling "disruption." For example, we can see that as one difference between ancient and modern thought, contemporary science can manage without the Great Unreproduced Reproducer, God, a.k.a. the sovereignly real (supreme) being and source of all possibility. My claim here has been that this is specifically the case when genetic programming becomes a domain whose possibilities can be techno-logically explored through a combination of gene-sequencing techniques and genetic surgery, specifically through restriction enzymes. There is certainly no doubt that one extant causal series that has been suspended by the technoscientific invention of a new form of life has determined impermeability from the genetic (*germen*) to the epigenetic (*sōma*), an impermeability characteristic of sexual beings as a causal law of species reproduction and evolution.

This is what I am calling "technoscientific disruption." It might certainly be objected here that biological science is unique, and that the delimiting of its scientificity has never been simple. But is it not true that *all* science has been integrated into technoscientific instrumentality, and has thereby interiorized all the criteria of its efficiency?

Orienting in the Darkness of Technoscientific Possibles

The *com*-posing of science and technics in the Industrial Age,[4] breaking with their *op*-position, then in their confusion in current technoscience as the producer of technologies[5]—this progression is just what Aristotle cannot think, since "for a Greek, science is a totalized explication that can be developed further only by suppressing contingency" (PA, 69), while technoscience, on the contrary, opens out the immensity of a new play of decision-making replete with darkness, which is not that of theorematic light but of hypothetico-technical *making* designed only to modify process, and in which one must attempt to orient oneself among the diversity of overabundant possibles searching (in the dark) for a *systematic exploration of darkness*. An exploration such as this is already under way when, at the end of the eighteenth century, the English entrepreneur Boulton encounters James Watt. In *Technics and Time, 1* I maintain that their association inaugurated the Industrial Revolution, defined not as *making* but as a new kind of availability of capital, which became steadily more mobile and deterritorialized, and therefore to the conquest of increasingly varied "investment opportunities," which in turn led to the appearance of "underwritten research."

All of this did not become truly systematically organized until the beginning of the twentieth century (most notably with Holst and Philips electronics[6]): we now call it research and development. But the process of *permanent innovation* arriving with the debut of mechanization is what I have called "modernity," an environment in which an investor has no hesitations about engaging, through support of both marketing and the organizing of research and development, in the systematic exploration of *possibles*—as the real fades into the background.

"Industry" no longer invests *after the results* of science; science is now what is *financed by* industry to open up new possibles for investment and profit. To invest is to *anticipate* a given situation or result, as a reality that *already* belongs to the past. The conjunction of technics, science, and this new mobility of capital signals the opening of a future that is to be systematically explored through experimentation. As science has become technoscience it *describes* the real less and less, and is instead what increasingly radically *destabilizes* it. Technical science no longer depicts what *is* (the "law" of life): it *creates* a new reality; it is a science of becoming—and, as Ilya Prigogine and Isabelle Stengers

demonstrate, of the *irreversible*.[7] It is this irreversibility that we must analyze more closely.

In order to be "oriented in the darkness" of technoscientific possibles that are systematically investigated through investment, at least two obviously linked criteriological possibles present themselves:

1. Efficiency conceived as the probability of a beneficial outcome, the question being to know what its "*bene*" might be:

—is it "the good" of *We*, "our good"?; i.e., the series of events infinitely integrating the absolutizable future of this *We*,

—or is it "the good" in the sense of industrial production, consumer *good(s)* with a *bene*-fit conceived in terms of profits on investment, profits that are amortizable over a "reasonable time"?

2. *Making* one of the two following choices, each using a different sense of "make":

—one is *feasibility*,[8] calculation of cost/benefit connections, but that must ask what is to be called "cost" and what "benefit,"

—the other is making a *difference that must be made*, and thus the other meaning of "to make," that knows nothing of being conditioned by efficiency or profitability since this difference, *which is a fiction*, can only appeal to a radical improbability and a default of reason.

Yet it could be that this default is here, *as such*, still (a) reason, simultaneously a motif and a necessity—in fact, a motif and the necessity of the incalculable, including *death* itself, as what un-determines *Dasein* and is the human (living) being's *great default* (but also precisely the element of chance-in-life, the principle of an immense process of individuation we call "evolution").

Through this double-double alternative that is not necessarily disjunctive (this is what is called "composition," the law of adoption—which is itself the law of transmission), we merely introduce, programmatically, a reflection-to-come onto the necessity of default, on the phantasm of perfection that would want to eliminate default, on the *diabols* thus generated by *symbols*, and that will be the focus of my next works.

Praxis in Critical Philosophy

The immense questions imposing themselves on us here are absolutely inconceivable for both ancient *and* modern philosophy: thus the imperative of a "new critique." For Aristotle, development of apodictic

knowledge is the trend toward the elimination of merely technical knowledge: "[Technics] does not progress in the same sense as scientific explication: it disappears to the degree that the other advances" (PA, 69). This view is also Kant's, yet there is a profound difference between Aristotle and Kant on this point: for Aristotle, technics is in the domain of contingency and of imperfection in nature, while for Kant it is in the domain of an imperfection in *science itself*:

> Now if an empirical engineer tried to disparage general mechanics, or an artilleryman the mathematical doctrine of ballistics, by saying that whereas the theory of it is nicely thought out it is not valid in practice since, when it comes to application, experience yields quite different results from theory, one would merely laugh at him (for, if the theory of friction were added to the first and the theory of the resistance of the air to the second, hence if only still more theory were added, these would accord very well with experience).[9]

Technics is here indeed applied science: it has no opacity *by rights*; it can remain in the darkness of reason only *in fact*—by the *fact* of science's incompleteness. For Kant as for Aristotle, science is what announces and formalizes the real *as what cannot be otherwise*. In this sense, science is *the science of being*, and it is that *constatively*.

What is more, neither Aristotle nor Kant, thinking technics as a *means* for a producer who is its *end*, can see the dynamic system "beneath" technical evolution; for both Aristotelian and Kantian thinking, technical *evolution* does not exist. For Aristotle this would be, rather, an *in*volution, something called up only to be eliminated by rights (if not in fact); for Kant, any evolution that is apparently technical is in fact *already scientific* evolution.

As we have seen, any evolution that could be called *properly* technical only comes into view (and begins to be thought through) in Marx, who clearly appeals to a theory of technical evolution inspired by the one Darwin hypothesizes for human beings, though still as a means of *production*, when, as science and technology increasingly overlap, their "confusion," at first overlapping and then borderlessness, moves toward a technoscience in which technological innovation is suddenly accelerated to the point of reversing its valence, engendering a sense of menace and destruction.

While the Industrial Revolution had begun as a new process of adoption under the sign of a promised progressive emancipation, the

resultant technosciences, essentially implementations of new processes of retention, reproducibility, and transmission, increasingly confronted the risk of a rejection of an adoption seen as a regressive menace under the influence of graftings that undermined every possibility of the unification of a *We*, and potentially provoking immunizing defensive reactions, lacking any evidence that could be projected out to infinity—i.e., that could be idealizable. This is one of the central dimensions of malaise-as-disappointment.

But such a criterion remained and remains to this day *undiscoverable* within an *uncritiqued* technoscientific context in which the associations between real and possible have been reversed, the real having become a modality of the possible, invalidating the Kantian division between theory and praxis.

Unlike Aristotle, for Kant, in fact, knowledge is divided into two domains (whose commingling—*confusion*—preceded metaphysics, and which the three *Critiques* re-secure for reason): the theoretical domain and the practical domain. This a priori division, which is the substructure for critique and always at risk of being challenged, obstructs any rethinking of technics in an age of technology and technosciences: it is an obstacle to the very possibility of a *political economy of adoption*.

In his interrogation of causality, Kant neutralizes what in the theoretical domain results from all phenomena of the will (and is in fact a *practical* matter in Kant's sense, linked to the reign of ends within moral law—as if technical acts did not exist), and simply does not ask questions in the face of which the possibility of separating theory and practice would be less straightforward.

Technics is for Kant by rights indigenous to theory: it has no practical dimension; it leads directly to the example of the artilleryman who places his practical knowledge against ballistic theory only because of his ignorance of the theory of air resistance, and who thus has no actual practice, properly speaking. For Kant, practice can only exist when *freedom* is enacted through a *will*. Paragraph 14 of the "Transcendental Deduction," which examines the link between a synthetic representation and its objects, does not address any suggestion that the will could *causally* produce its object as "capable of existing" (CPR, 143), precisely because technical practice has no place there, being merely a *consequence* of theory, in which will is neither cause nor effect but the *middle term*.

Criticism as Negation of Invention

The problem is that an analysis such as Kant's leaves no possibility of recognizing what happens in the case of invention, being in fact ineluctably a *negation* of invention, as is made clear in paragraph 23, which lays out the use-less-ness of concepts lacking correspondent sensible intuitions. This is negation to the extent that we can no longer call invention simply what we had previously designated as a process of interiorization/exteriorization in the sense of "the invention of the Holy Cross," but rather what constitutes the first term of what Simondon calls "technical lineage," whose genesis cannot be reduced to any purely physical explication but which emerges from a specific kind of individuation: the process of concretization.

If we accept that such a lineage is possible only through the invention of possibles not already contained in the real, or (to speak Simondon) if the individual is not seen as a given, *in advance of* any explication of the process of individuation, the crux of the matter, then we must re-interrogate the distribution of roles between the two sources of knowledge, intuition and understanding. Is it still possible to say, as Kant does, that "this extension of concepts beyond *our* sensible intuition is of no advantage to us" (CPR, 163), while the imagination, as the faculty of invention proves itself to be, precisely in this technoscientific age, is susceptible to rendering intuitive what was not intuitive at the moment of its representation (and thus of what could be called its conception), and that initially consisted of what we might now call chimaeras, fictions emerging from reason's speculations?

What *is* happening between understanding, intuition, imagination, and the ideas of reason when, for example, such chimaeras can become serial technical productions, and thus reproducible (even reproducers), put on the market, and introduced into the process of adoption by industries of biotechnology, or by the lifelong process of agribusiness, stretching from procreation through the industrial production of biological prostheses, as transgenetic graftings? Or rather: in the age of generalized simulation as an investigative methodology, what might a "schema" actually be? And a simulation?

That fact that Kantian thought does not recognize the clear rupture between theory and technical practice, and that for him technics is merely (unlike for Aristotle) applied science even when it remains

unexplicated, is the consequence of a conception of an understanding enclosed *within* intuition, necessarily negating the possibility of invention defined as the opening out of a new technical lineage; it is the negation of the process of technical individuation[10] in which transductive relations bring about morphogeneses that in turn lead to functional overdeterminations, and in which the functioning of matter cannot be reduced to the singular implementation of the laws of physics, but rather arise from the rule of the organized inorganic, to which we must now add the *dis*organized organic.

Simondon's studies of the genesis of what he calls "associated milieux" tend toward an inextricably techno-geographic space in which technological individuation clearly intervenes in geophysical dynamics as a disruption, thus introducing into technical genesis the *need for anticipation* in advance of any assessing of the lessons of functional matter as revelations of functional defaults' having reversed their valences (as in the case of the Lenoir motor's auto-ignition, which became the principle of the diesel motor[11]) and as practical experience irreducible to a simple application of physical theories of matter, since functional matter is never *solely* the application of a *physical* function but of an organizational complex, even when it is not properly organic. Thus the techno-geographic medium also includes *human* geography.

The development of industrial objects is in itself an experimentation and an exploration of new possibles, and the mundane world is thus a permanent laboratory (this has become glaringly true with the arrival of the IP network). But the possibility of anticipation, as I explore it throughout *Technics and Time, 1* and *2*, is itself conditioned and overdetermined through possibles of tertiary retentions—through the technical medium of the *mind*. Far from being reducible to the physical, technics is thus a milieu that conditions the temporality of "practical reason," of the will, and that is in return infused with a practical causality that is itself subjected to the constraints of physical causality. But this remains a completely abstract concept so long as it is not confronted by the problem of the *condition* by which it is localized: the phenomena of local and metastable equilibrium (but also therefore potential *dis*equilibrium) that have haunted the physical throughout the twentieth century.

What I have just called "condition" in treating the technical conditions of temporality of one who wills is obviously not *determination*, which is why "technical condition" is not a negation of practical freedom.

But on the one hand, in some sense this is all a matter of *conditional* freedom, even when it is unconditioned with regard to mechanics, and on the other hand this capacity for anticipation, technically overdetermined by the play of retentional mechanisms and projected through irreducible possibles to the singular physical reality of functioning matter, negates the exclusion of "causality as a medium of the will" insofar as it concerns the association between synthetic representation and its object.

Whereas for Kant technics can be nothing other than applied science, as a result of its being only the analytic development of the concepts of understanding in their consciousness of intuitional data, my claim is that technics *permits the construction of schema, including practical schema*; technics' connections to theory and its place in theory must therefore be disrupted. If a lump of clay can be formed in the modeler's hand it is because that hand is guided by concepts of clay that can only be acquired through "gestural frequentation": the hylemorphic analysis concealed beneath Kantian reasoning, echoing Aristotle and in confrontation with him (an analysis that orders the relationship between intuition and understanding), is precisely what Simondon challenges in *L'individu et sa genèse psycho-biologique*.

Yet the originary technicity of theory, as of praxis, and the specific question of technoscientific praxis resulting from it, means that the causal "freedom" today's technosciences expressly suggest to us is not at all *mastery*: in part because it is conditional freedom in the sense in which freedom, as unconditioned with regard to mechanical causality, is conditioned by the possibles offered up in retentional devices for constructing the flux of consciousness, and in part because the evolutionary dynamics of technical systems are systemic data with which technoscientific practice must conjoin.

As such, technoscientific modernity is what authorizes philosophical modernity, a modernity of which Descartes and Kant are the inaugural and terminal figures. Philonenko foresaw, in 1969, Kantianism's struggles in an age in which "the end of reason is henceforth linked with the machine in a very narrow sense" and in which it seems that "Kantianism rests on a science and an understanding of science that no longer exist" (AP, 336).[12] But this voiding of the discourse of mastery is exactly the object of the denial of contemporary powers that align their proclivities all the more noisily as they ceaselessly encounter the fact of their own

impotence—and I am not speaking of *public* powers—while all the while having a profound sense that un-science is making the laws.

This contradiction, which has been heavily analyzed in France as a loss of standing by the "elites," is a major catalyst for the current malaise. It is especially corrosive of the authority of the professional elite: the educational system, charged with making the situation of a *We* intelligible, appears on the contrary to be rendering this *We* incomprehensible and thus illusory, giving rise to the incivility that unsophisticated (immature) minds would prefer to limit to less complex matters, easier to "explain" or entirely avoidable.

For Kant, only in the moral domain can "freedom transcend all designated limits . . . whereby human reason demonstrates true causality and ideas become efficient causes (of actions and their objects)" (AP, 265). Technical ideas are *not* efficient causes but theoretical concepts; in the absence of all practical questions concerning the domain of technics, technology, and technoscience, in criticism itself, the question of the future is still not linked to the question of becoming, where in any case it certainly must not stop but through which it can only pass in order to install difference there.

But *becoming* is the practical domain of technics as the possibility of the artifice through which both nature and freedom are revealed, and where the question "what must be done?" (as difference) is clearly in evidence; where the *necessary default* that can become a *criterion*, and where experience is certainly not "what furnishes the rule":

> So far as nature is concerned, experience supplies the rules and is the source of truth, in respect of the moral law it is, alas, the mother of illusion! Nothing is more reprehensible than to derive the laws prescribing what *ought to be done* from what *is done*, or to impose upon them the limits by which the latter is circumscribed. (CPR, 313)

If my critique to this point is valid with regard to the negation of invention through criticism, what must now be addressed regarding illusion also concerns the efficient causality of reason not only as a moral (and political) domain but as a technical domain as well. And that would mean that such a politics must be a politics of technics, a practical thought of becoming capable of furnishing it with an idea projecting into the future in which becoming is the "agent" and where nothing remains "more reprehensible than to derive the laws prescribing what *ought to be done* from

what *is done*, or to impose upon them the limits by which the latter is circumscribed," the very essence of cynicism and renunciation, and the discourse of mimeticism and adaptation that is indeed condemnable in being used as an alibi for facts against rights.

A politics of technics should be able to elaborate practical ideas capable of asking and regularizing the question as to *what must be done* within the practical domain insofar as it consists simultaneously of nature and freedom. It is just this concept, as the totality of phenomena, that is entirely conditioned in both Kantian and common thought, by the *order* subjecting possibles to the *real* of substantiality. But this ordering is disrupted by technoscientific activity: questions associated with current practices coming out of biological theory are indissociably theoretical *and* practical. Since these practical questions are situated at the intersection of the practical and theoretical domains (of nature and freedom), thus conferring efficient causality on technical ideas, the entire theoretical domain enters into crisis.

This very question is asked in a unique way regarding human beings such that, becoming *material* for the industrial biological system, they constitute a new mechanism of tertiary retentions through which the process of retention can be controlled through criteria that are neither scientific nor theoretical but that lead to the production of a series of chimaeras, clones, and other transgenetic materialities.

But the same question must also be asked of the multiplication of new kinds of media of association, techno-geographies, and markets produced by digital hyperindustrialization and the generalized performativity it employs. This hyperindustrialization, as the development of integrated transmission industries in which technologies of production fuse with mnemotechnologies, is also a technical hyper-reproducibility that shares with biotechnologies their mutual installation of new conditions of reproduction in all its forms—and in particular, reproduction of knowledges.

And regarding knowledge we must also ask ourselves: what would be the principle of subjective differentiation in an age of technoscience? We understand now that such a principle, as the need for reason's being authorized to orient itself in the darkness of suprasensible things, would consist of a faculty capable of judging the quality of technoscientific fictions. Within the context of this question, lacking such a criterion, the need for reason no longer able to call on a real, supreme, sovereign being as the ground of all possibility, the crisis reaches its peak and reveals its

immensity as both the consequence and the stakes of industrial investment in retentional processes.

What Do We Want?

RELEVANCE OF THE SUBJECTIVE PRINCIPLE OF DIFFERENTIATION

Kant's central question has to do with knowing how and through what agency can reason be guided and oriented "in thought" when it no longer has recourse to experience. This is, of course, the question of God and of a rational faith—a question asked in the immediate wake of Frederick the Great's death in the fear of a return to censorship, and in the context of a conflict between Mendelssohn and Jacobi amounting to nothing less than a crisis of the *Aufklärung*.[13] We will return later to the questions of faith, fidelity, and belief in the Eternal Father, the "Father of all fathers," and to the idea that in any monotheism it is necessary to *adopt*, just as all fathers must adopt in order to be adopted (cf. Moses); what is of interest to us here is the question of rational thought devoid of any possible actual experience, and that thus finds itself obliged to fictionalize.

This question, which in Kantian thought is that of the *need* for theoretical reason and a *duty* to practical reason, should engage us at the moment at which (science having become technoscience) it also claims to be a techno-science-fiction that is itself asking, in a completely new register, the question regarding the end, the end of all things. That is, it is immediately practical, not only theoretical: it forces the Kantian distinction, which so pitifully manifests "ethics committees" and other "citizen councils," back into question.

The extreme *novelty* of this new register must be situated precisely in this question of experience-less rational thought, and what is more, it is completely indissociable from new retentional devices, plunging the educational system (seen as a mechanism of transmission and reproduction of knowledge) into disarray, to the point of threatening it with collapse, given that this techno-science-fiction is itself an absolute revolution within the question of transmission (and, again, of reproduction): techno-science-fiction is a *reproduction-as-fiction* industry, sometimes described as reproductive fiction (not only production of *monsters* but *production of diabolical beings* who threaten the world *as* "the Devil," or

as action against its possibility). Clearly, we must (and will) return to the immense risk of diabolizations of every kind.

Technoscientific "reason" is in some respect constrained to *fictionalize*, but it should fictionalize *rationally*: through a reason fictionalizing an end of all things, just as Kantian reason, before being oriented in suprasensible things, must rationally fictionalize an end to nature—knowing the perfection of God, only possible as an improbable hypothesis or as a promise of the same structure as that of ideality in general: "no object adequate to the transcendental idea can ever be found within experience. . . . As being the concept of the maximum, [the idea] can never be correspondingly given *in concreto*" (CPR, 319); it is always somehow *in default*—even while making the/a *difference*: to be *in default* is *to make a difference*.

This fiction, inserting itself into suprasensible things, is responding to a *need* of reason. Indeed, reason *is* this need: it *is made of* default, of originary lack; it is never *self*-sufficient, as Valéry points out. Briefly, it is only *an interminable projection of its nonexistent unity*. In fact, the entire question focuses on the relationship between *desired perfection* [*perfection visée*] and *the default required for aspiring to it* [*défaut qu'il faut pour pouvoir la viser*], in an age in which it is no longer possible to assert a supreme real as the standard for all possibles—a standard that is generative, but generative without a genitor, reproductive without a parent; Eternal Father and Absolute Past, first and last reproducer. *Creator*.

Under what conditions is a promise of perfection, a desire for the unity of a *We* as desire for knowledge, possible? Answer: on condition that the default of, the lack within, reason is preserved: its *necessity* as principle of differentiation. Consequently the real question is of knowing the conditions by which such a need—such a default—can be preserved, since it is not reproduced spontaneously every eight hours like that hollow feeling in the pit of the stomach; can it be threatened, and if so, by what?

This need for theoretical reason that is also a *duty* in practical reason, for which "we are no longer constrained to presuppose the existence of God 'if' we wish to engage in such judgment, but because we 'must' judge," meaning that the question of this criterion is necessarily present, in a technoscientific age, as the conjugation of a need and a duty—as the arising of the domain of a *will*. This is the question that technoscience expressly suggests to us, and that it suggests expressly to what we see as the possibility and the necessity of a *We* so that we could project ourselves as *I*, is, *what do we want*?

Technoscience suggests to us, expressly, the question of knowing what we want, since the fiction that is reason today, constrained to project (as technoscience), becomes the fiction of a science that is no longer what could be called the real, but rather that which *invents the possible*. It is also and always the question of invention (thus technoscientists are now increasingly interested in patents rather than "discoveries") and of the possibility of its adoption. This fiction asks us for criteria, which is the condition of adoption. It asks us what we want in the face of immense possibilities it irresistibly opens. This frightens current knowledges, which are completely *disoriented*: the requested criteria are (de)faulty, and we must swear that we do not know what we want since, as Nietzsche understood so well, we cannot *not* want. Hence malaise and ontological indifference.

We can only progress through such questions on condition that we attempt a critique of technoscience, a sensitivity to the disruption of which it consists. Far from expressing the possible modalities of the real, technoscience explores possibles of which the real is but a transitory concretization, a momentary stasis within a process, and one that can never stop the process of becoming in order to be transformed. Thus, in the classical age, stability was the rule and change the exception; today, in an age of permanent innovation, it is stability that has become exception and change the rule. One of the innumerable consequences of this is that human beings appear to the biotechnological industry as a *state of possibles* at a given moment of evolution, a state nothing can stop from modifying in pursuit of "evolution by new means," which are given through control of retentional devices, including genetic material.

From Possible to Real: Performativity of Techno-Science-Fiction

Technology is simultaneously an age of technics and an age of science: the age of technoscience in which technology and science mix in a new rapport. Technoscience designates at once a new way of being for science and new mode of being for technics; the outcome is technology. Technoscience is science in the service of the development of technology, but whose conception is at the same time reversible.

Technology is technics that has functionally integrated scientific knowledge into it, so is no longer in conflict with it. Science and technics were

first defined, in ancient times, by their *op-position*; modernity reduced technics to being only an application of science. Technoscience is the *com-position* of science and technology, meaning that science submits to the constraints involved in becoming the technology that formulates the systematic conditions of its evolution.

The traditional opposition between science and technics rests on an ontological postulate by which science describes the real in its stability (i.e., the being), called *phusis* and then *natura*. Science describes nature as the stable soil of the real, or as the ideal identity of the real—as *essence*. For this reason, its goal is *discovery*, constituting an ideal of pure constativity, pure description of the real.[14] Descartes defines this essential describability as "objectivity."

On the other hand, technics is the *inscription*, within a living being, of a *possible*. This possible is not scientific in that it is not subject to the laws of being (as they are made compatible with being-as-stability). It is accidental. In Kantian thought, this accident is simply ignorance of science: for Kant, technics is applied science, meaning that for him the possible is but a modality of the real. For Aristotle, this accident is the index of a contingency, but this contingency is reduced to an *epistēmē*.

Beginning in the nineteenth century, as stability became increasingly uncertain and change the rule, it began to appear to be possible that technology, emerging from the technics associated with science, might prove to be *incompatible with being*. As the possibility of *becoming,* it could become ontologically monstrous and could thus take on a diabolical character: we therefore see many manifestations of the Faust myth, but more generally, and as a continuation of something much more ancient, a complete denunciation of *hubris* or *hamartia*, the confusing of accident with essence, a confusion that becomes ubiquitous in the twentieth century.

This *possibility* of being is in contradiction with the *law* of being: it is a non-being within being, a nothingness, an illusory power of negation that always results in impotence—such as that of the sorcerer's apprentice who, like Epimetheus, *asserts* (though always *too late*) the *performative* (and uncontrollable) consequences of his actions. Contrary to the ideal of pure, classical scientific constativity, the essence of technology as the producer of technoscience and whose purpose is invention, is in fact always performative. Far from describing *what is*, i.e., the *real*, technoscientific invention (whose *adoption* is called "invention" insofar as it brings

to light a novelty that transforms being) is the inscription of a possible that always remains excessive to being, which means to *the description of the reality of being*: it is heteronomic relative to ontology, and therefore capable of being apprehended as purely accidental.

Reality is of only secondary interest to technoscience; it is a launching pad for access to new possibles.

As long as science is "classical," it will always perceive technical heteronomy as the *provisional* appearance of being's transformation. For classical science, this alteration is illusory and is sustained in a particular view of science, in that it does not augment the description of being's permanence as integrating the technical possible as a simple modality of being, thus effacing its novelty by bringing it back into conformity with the ideal identity of the real, which frames the scientific discourse of being by separating essential from accidental. Any possible that is apparently new, as revealed by technical invention, was *in reality* already contained within the real; this is precisely the Kantian position.

But when science is no longer classical its pretensions to an ideal of pure constativity are diminished; as technoscience, it *becomes* performative: the possible no longer exists for its being a modality of the real. More precisely, it is the real that becomes a provisional (i.e., current) perspective on the possible. The possible breaks with the real. Science then explores all possibles, abandoning the ideality of being. Nietzsche describes this as the nihilistic aspect of the will to power; Husserl, as the crisis of science; Heidegger, as *Zeit des Weltbildes*, the age of world-images and *Gestell*, "enframing," or more literally "mechanism."

This sense of the possible also invades the dreams of human beings in the Valérian sense, inhabiting the mind and putting it in crisis.

Submission of the possible to the real signifies permanent metaphysical thinking, installation and perpetuation of the opposition of being and becoming; the correlate of such metaphysical opposition is subjugation of the possible to the authority of the supreme real (the Vatican position on procreation).

And this is also why for Kant the possible is a modality of the real. Heidegger disputes this, but even there we must investigate why he cannot go all the way to the dispute's conclusion. Nietzsche disputes it as well, through both the will to power and re-valuation of all values. *All* of this leads to the same conclusion: an assessment of what occurs when what I am calling technoscience requires the critique of a metaphysical

framing of the possible, the critical analysis of projection mechanisms and conditions of retention.

We have already explored the biotechnological synthesis of retentional finitude through which, for example, a contemporary geneticist intervenes in a gene sequence with the intention of "discovering" the keys to human functionality, in so doing creating the means of bringing about that functioning itself and making it (re-)produce *otherwise*, inventing another possible way of functioning and thus laying claim to . . . the contents of a patent.

Yet there is a considerable paradox here, in which the difference between descriptive constativity and inscriptive performativity is erased. If these are to be seen as in fact the theoretical assertions of molecular biology that have led to improvements in sequencing techniques and manipulations of the "genome," the implementation of these techniques is also the most radical contesting of this theory, if François Jacob is correct in his claim that the discovery of the structure of DNA has resulted in the definitive establishment of Darwinism over Lamarckism by showing that "the genetic program does not take lessons from experience" (in other words, that the *law* of life for higher beings is nothing other than the primary union of *germen* and *sōma*, between genetic species-memory and the nervous and cultural memory of individuals).[15] But by manipulating a genetic sequence, the geneticist creates a biological *event* of a new kind, in which the somatic memory of a higher being enters into germinal memory. In this respect, regarding the "law" of life for higher beings, it is outside the law; "outside-the-law-of-being" means any unchecked possible whose ontology can only predict what it must see as only a series of accidents.

In this sense, the "discovery of the real" has become an invention that invalidates that real. The geneticist no longer works on what had been the real of being, since it is now inscribed with a new possible hitherto not contained in it and that is thus not a "modality of the real."

And *this* in turn is only possible if we specify that this new possible was *already there* within the technical space of human being. But this *technical* possible imposes itself on the theory of lived life, intervening as a non-living occurrence in this vital phenomenon, and being formalized as such in it as an epiphylogenetic support for tertiary retentions through which discoveries and inventions become possible.

Analysis of the critical condition of technoscience, establishment of a

criteriology for judging the quality of its fictions, working through the question of knowing what we want—all of this requires a re-examination of what *technical life* (inventing, fabricating) actually is—which has always already shaken every axiomatic ontology at least since the appearance of the first stone tools four million years ago.[16]

The exteriorization process produces a new form of memory that can no longer be inscribed in Darwinian terminology. The living animal has a capacity for reproduction through the articulation of two memories that do not communicate with each other: genetic memory (the species' "program") and individual, "nervous" memory. If acquired characteristics cannot be inherited, it is because the individual animal's memory is erased at the moment of its death; it is not preserved nor transmitted nor accumulated. But technics opens the possibility of transmitting individual experience beyond the individual's life: technics supports a *third* level of memory, the mechanisms of tertiary retentions. Inheriting and adopting a tool means inheriting a part of the experience of the one(s) who bequeathed it: it is to adopt an experience, to make it part of one's own past even if one did not live it oneself, through retroactive delegation.

The tool is already a projection screen, since the adoption of such a past is—immediately—adopting the capacity to project a future. In this sense, adoption is simultaneously an "interiorization" and an "exteriorization" requiring training and practice forging the inventive (non-adaptative) coherence of simultaneously psychic and collective individuation. This *third memory* is what I have called epiphylogenesis, in which memory is housed outside the body through the *organization of the inorganic*: a tool, a system of writing (or speaking), a technical trace: these are (and were) nothing but inorganic, though organized, entities—until the advent of the current disorganization and reorganization of the organic, passing through proliferations emerging in the Neolithic that stimulated the transformative conditions of "selection pressure." The fact that "it" is already outside the body is *already* the suspension of the axiomatics of molecular biology, re-focusing the entire question of the possible, radically revaluing the originary technicity of human life—and beyond it.

The time has come to re-assess this new situation taking place in science and knowledge with the advent of "technoscience," the radical interrogation of axiomatic ontology, for which the *possible* is a modality of the *real*. If a provisional moratorium on biological research must be declared in order to test this properly, so be it; but if on the contrary there were

to be a move (as is clearly the case) to defer this interrogation to some other time, it is all the more pernicious that it would then be impossible to show it respect, but rather to see it as a delusion, a political lie, *bad cinema* for young consciousnesses who are only asking to understand and to question.

The way in which this debate is currently being gagged—by short-term (i.e., badly understood) industrial interests—inclines one to think that everything possible is being done to *bury* the matter, which is all the more urgent in that it has nothing to do with molecular biology nor even with science in general: society as a whole has entered an era of generalized performativity that affects the structure of every kind of *event*.[17] The abandonment of this question pollutes all educational activity, which then seems vain, decadent, "septic," and a source of incivility.

Technoscience is *not applied* science, and even less *explicated* science; it is *implicated* science, at once because it is financed, and because it has been implicated and stands accused through this implication that appears to be complicity.[18]

Scientists would do well to think twice before sweeping the contemporary anguish caused by un-thought away with a wave of the hand, as certain of them—obviously the most mediatized—arrogantly do. This is not to say that scientists should revert to classical, explicative science, which would in any case not be possible nor interesting (though technoscience is easily as "interesting" as science), nor certainly that they are actually guilty of anything. My assertion is simply that the occlusion of the *novelty* of the current state of things absolutely must cease, however difficult, delicate, austere, and lengthy the required explication might be. Difficult, delicate, austere, and long to be sure, such a project is also *exciting*—at least as much as science and technoscience themselves.

The Least Metaphysical People

Heidegger cannot see radio's calendric and cardinal purpose, nor can he foresee its retentional nature that in general exists no more for him than it does for Kant. He does not simply forget it; he tosses it aside for one basic reason: retention of synthesis supports *calculation*; it is what produces a screen for authentic temporality or, more properly, what as "preoccupation" allows for the "determining of the undetermined." Retention, Heidegger believes, gives a screen to the projection (to the

project) whose critical moment—whose pivotal element, what in a projector would be its *Maltese Cross*—is *Entschlossenheit* (resolution).

Retention of synthesis is creation of a projection screen; it *makes* a screen, says Heidegger, that has moreover always declared that as the *phusis kruptestai philei*, knowledge of ontological difference, it is a knowledge in perpetual withdrawal to what *originarily* "(makes) screens," or even *is* (made) a screen.

My case is very similar to this, but declared very differently—which *makes* a great difference: I certainly do not hear (as Heidegger *can* "hear" it), in this language that is so un-philosophical to his ears, this *French*, what this strange and beautiful expression, *faire écran*, "to [make a] screen," means. This presentational difference completely reverses perspective: my position is that the screen is in *every* respect the *condition* of projection. I assert that projection, which Heidegger calls the primacy of the future, is necessarily phantasmagoric and rests on a mechanism of selective retentions; this is the sense of the adoption of *becoming-as-future*, and of what is revealed along with the particular modernity that reaches its fullest development in the United States, prior to its reorganization of the globe. And it is *what* is revealed there, even if this "revelation" is negative.

But it is also a *veiling*, or at least what appears as such, of the knowledge that becoming shows itself to us baldly as the cancellation of a future, of a "dia-chrony."

In the face of this rather glaring un-veiling, a "new critique" is necessary, made possible by the existential analytic. Still, a Heideggerian problematic of "modern technics" will not permit us to understand the characteristics of an age in which we sense an *irreversible* vanishing being played out at the same time that, and *as*, the appearance of a new *extreme*. Transmuted into dogma, such a problematic even constitutes an especially twisted blocking-mechanism.

Heideggerian thought's "history of being," that in the 1930s displaces the existential analytic, renders the then-current episode of the war of minds being played out in the United States, once again, completely unthinkable; according to the *Introduction to Metaphysics*, it is only one of the vice-jaws crushing Germany; but it is also for Heidegger a new occasion to speak about radio, and in a very contemporary way:

> Russia and America, seen metaphysically, are the same: the same hopeless frenzy of unchained technology and of the rootless organization of the

> average person. When the farthest corner of the globe has been conquered technologically and can be exploited economically; when any incident you like, in any place you like, at any time you like, becomes accessible as fast as you like; when you can simultaneously "experience" an assassination attempt against a king in France and a symphony in Tokyo; when time is nothing but speed, instantaneity, and simultaneity, and time as history has vanished from all people, when the tallies of millions at mass meetings are a triumph; then, yes then, there still looms like a specter over all this uproar the questions: what for?—where to?—and what then? . . .
>
> We lie in pincers. Our people, as standing in the center, suffer the most intense pressure—our people, the people richest in neighbors and hence the most endangered people, and for all that, the metaphysical people. (IM, 40–41)

It is striking to note:

> —how cruelly easy it would be to treat this text with derision;
>
> —yet how it "speaks";
>
> —and what *blindness* to what is taking place across the Atlantic he confesses in the way his subject is delivered—on the pretext that technics is "unchained" frenziedly "over there," since "over there" is the "the rootless organization of the average man"—the *organization of adoption*.

The same blindness continues throughout *Being and Time*, in which contemporary technics, which Heidegger does not distinguish from what he calls "*modern* technics," is exclusively apprehended as a cybernetic project in which logic becomes logistics and calculation, while complete inattention to what I am calling the substrata of apperception and to the prosthetic synthesis that conditions recognition results in his not seeming even to be aware of the *metropolis* of industrial schematism, the mnemotechnical organization within programming industries synchronizing the flux of consciousness, and the convergence of the technical system with mnemotechnics, the decisive element in *Gestell*.

The United States, which is *not* the same as Russia—and it is certainly far easier to say this today than it was in 1935, is undoubtedly the world's *least metaphysical* nation and people, but also the deepest in terms of philosophical questions about the tradition of the critical thinking emerging from metaphysics, because it is the best equipped technologically, politically, culturally, and economically to *control* contemporary retentional mechanisms. The United States is the country leading the industrial

synthesis in its guise as the coordinated implementation of analog, digital, and soon biological syntheses, all converging in a single, unique retentional industrial system and constructing the global mnemotechnical system along with systems for the technical production of consumer goods, since machines, robots, biological sequencers, nanotechnological prostheses, and other automata of production have themselves become digital.

This convergence, concretized through the coming together of the programming industries and information technologies such as cameras, tape recorders, telephones, and television viewers that are in turn becoming digital and thus compatible with computers and interoperable devices through various networks, combines the processes of retentional delegation through the nervous system and the imagination such that they both, as understanding and schematism, come under industrial control that subjugates both somatics and the germinal.[19]

Taking control of retentional processes, however, *first* means controlling the technologies of the *mind*, both in terms of controlling decision-making processes by equipping conceptual tools with those necessary for technoscience, and by neutralizing all of adoption's potential resistances. The influence of the United States and its ideas currently dominating the world are less a result of powerful and systematic *lobbying*, which is of course ubiquitous, than of the enormous means at the disposal of American "missionaries" across the spectrum of mental technologies, missionaries who are now imposing themselves, through the global market, on every other global civilization.[20]

Clearly, yet again a *new critique* is needed, capable not only of assessing the current state of affairs but of presenting other options, other alternatives, to it, not because we should be hostile to the *fact* of the American Empire in principle, but because we think that the politics by which the empire is managed is as dangerous to the culture it dominates and absorbs as it is to itself and its equilibrium (meaning *our* equilibrium), *we* who have all in some way or other become Americans—not American *citizens*, perhaps not complete *subjects* of America, but certainly *dependent* on everything that happens in America (the entire globe has been "*americanized*"), for better or worse.

The inherent danger in this American politics is all the more effective and menacing since it rests on a hitherto-unheard-of understanding of becoming, if not of the future, by way of entropic phenomena necessarily

engendering the industrialization of the control of flux, due to the tendentious destruction of diachronies that in turn engenders the loss of the *symbolic* efficacy of synchronies no longer capable of forming the body of rhythmic, centripetal events, and an augmentation of the *diabolic* (i.e., centrifugal) efficacy of industrial symbols. The atomization of the *We* is by all evidence a phenomenon of daily experience, each day becoming clearer, more ordinary, more pressing, and more concrete, a fact that is universally declared and experienced as a persistent increase in insecurity.

Integration of Retentional Mechanisms Expanded to Living Beings

Digitization has concretized at enormous speed. This means that the exteriorization of any unifying understanding of apperception through technologies of calculation and information processing, as well as the exteriorization of the imagination through the industrializing of schemata, are conjoining through the merging of Hollywood film and television studios, on the one hand as informatic industries and, on the other, as networks and servers, all on a global scale. For reasons we have already explored in previous chapters, this all appears to be the increased (if not the imminent) possibility of the *I* and the *We* fusing, becoming a *One*, and of the *who?* becoming a *what*, or tending to become a *what*, and thus *functioning* rather than *behaving* (what Adorno calls "reification").

This combinatory industry anticipates the development of immense global communications groups (publishing houses, press, radio, television, cinema, multimedia, telecommunications, advertising, consulting) since frankly they too are becoming an integrated "editorial" sector, a complex mechanism for editing and publishing in which the *written object* and the digitized *temporal audiovisual object* will be increasingly connected.

These objects' digital reproducibility will mean their "compression" and indexing, as *new grammatical formalizations*[21] (for language, in which "grammatization" is pursued through the "language industries"[22] as well as for discrete audiovisual objects, as, for example, by international standards such as MPEG) allowing for the building of data banks, diffusion by new networks or optical supports, and the formalization of service systems for directed navigation, which is itself a major evolution for cardinality.

These large industrial groups are now engaged in an intense war for control of these retentional stockpiles, the catalogues and archives of audiovisual, musical, and literary works, attempting to acquire the rights for their exploitation and dissemination, just as other (related) industries have attempted to seize control of the human genetic constitution.

To the extent that scholarly and university education necessarily rests on editorial mechanisms that provide access to disciplinary memory and organize themselves into an institution to aid "navigation" within various knowledges, it is clear that the technological mutation of the editorial industries now constituting the immediate retentional milieu that provides the basic materials to educational systems cannot *not* drift toward a profound and rapid evolution in the educational system itself, a system increasingly integrated into the programming industries.

But the growing lack of differentiation between the *who?* and the *what* (where the *who?* is increasingly controlled by machinic retentional devices[23]) is seen as an advanced stage of the entropic *process* and its resultant *situation* brought about by programming industries in which the *I* is fundamentally confused with the *We*. In other words, what appears to be the principal result of a development in the programming industries that tries to commandeer the education market completely is a contradiction of the national education ideal that sees itself as having a universal calling, the formation of a *We* through intensification of the constituting factors of an *I*, based on to what this *We* represents in terms of transmissible and formalized knowledges, its singular difference in and regarding this *We*, which might be called its *free will*.

The biotech industry is the counterpart of these new televisual and editorial programming industries. The globalization of the technical system as it becomes a global mnemotechnical system results in the integral control of all forms of retentions by the combinations of diverse technologies of the industrial synthesis of retentional finitude, including biotechnologies: as gene sequencing becomes investments it is itself tertiarized: the genetic identifications resulting from gene mapping and the restriction enzymes of gene surgery make the sequences transmitting genetic characteristics *manipulable*, a core characteristic of all tertiary retentions. These tertiarized biological retentions constitute the prime material of the "human industry."

This is all to say that if along with industrial temporal objects consciences have become a market for the programming industries, which

are called upon to expand into ever-younger learning consciousnesses through the creditable and indeed indispensable professional instruction required for permanent innovation, the biological substrata of these consciousnesses are themselves a market, prepared for by alimentary biological substrata: corn, soya, sheep, cows, and Gilles Châtelet's pigs.

In brief: transmissional integration in all its forms, the technological device's very core that is now universally instigating the same "criteria of selection," poses an immense question of *reproduction* that would be very dangerous to limit to the "simple" "ethical" questions regarding human technology. The following offers a brief exploration of the question, analyzing what I will call industrial *hyper-reproducibility*,[24] brought about through digitization.

Hyperindustrialization, Hyper-reproducibility, and Generalized Performativity

Analog reproducibility produces culture industries such as photography, cinema, records and CDs, and broadcast media. This has immense consequences for the arts, for "political life," for public spaces and public matters in general, and for the conditions of dissemination of works of the mind and modes of public life. Further, it allows for the industrialization of culture in the sense that it authorizes serial (mass) production—production that is originarily a reproduction, without an original, as Benjamin emphasizes with regard to cinema. In cinema, in fact, reproduction is primary: there is no prior production that is subsequently reproduced. Cinematic "content" is precisely the celluloid strip (or videotape or DVD or Blu-ray Disc or MP3 player, etc.) that is manipulable and duplicatable at will since it is *initially already* reproduction: a film is produced through manipulation of the reproducible, and this reproducibility is precisely what makes cinema a temporal object.

This *pro-duction*, originarily re-production—production of a *series without an original*—is what I am calling *repro-ducibility*.[25]

But what is true of cinema is true generally, and cinema is the revelation of necessity encompassing it: in *all* reproduction there is an element of repro-ducibility transcending what, as original product, if there is one, is "repro-duced." From this point of view, Adorno is right to see a certain weakness in Benjamin's analysis when he seems to place a pre-reproductive period in opposition to a period of reproducibility.

As for Benjamin, after he has cited Valéry and then commented on Marx, specifically the dys-chronic connection between infrastructure and superstructure, he says that there has always been reproduction in art: "in principle a work of art has always been reproducible."[26] But in addition to the fact that this is a matter of analyzing the effects of *mechanical* reproduction, Benjamin often generally tends to attenuate the range of this initial proposition in the sense that as his thinking develops, the opposition between two eras deepens: the first of manual *production*, even if it is always in one way or another accompanied by reproductions, the second of machinic *reproducibility* in which the original disappears, as in cinema or photography.

This is why Adorno is correct in objecting that

> the objectification represented by the cave drawing as against the immediacy of the object viewed already contains the seed of a technical procedure effecting the separation of the viewed object from the subjective act of viewing. Every work of art is intended for appreciation by the many, which is why the idea of reproduction is inherent in art from the very beginning. In this connection, it may be worth noting that Walter Benjamin exaggerated considerably the difference between what he calls auratic and technological works of art, at the price of ignoring the common element in them, thus exposing his theory to dialectical critique.[27]

We have seen, on the other hand, in citing Burkhardt Lindner (this time against Adorno), that contrary to appearances, what Benjamin calls reproducibility, far from being a simple copy of the real, adds something *constitutive* to it, constitutive of techniques of reproduction developed through what Adorno calls industrial culture, and that according to Benjamin give cinema, for example, its analytic force, its capacity for the *deepening of apperception* (WB, 235), not only its power of alienation.

But this is also what has allowed Hollywood to become the capital of schematism, modifying the synthesis of the imagination to the extent that the synthesis of recognition is essentially a synthesis of reproduction relying on the prosthetic substrata of what in Kantian terms is a *fourth synthesis*: tertiary retentions, forming the medium for technical reproducibility in general. There is no reproduction that does not transform what it reproduces, meaning that it is thus not a new product but a re-product, what I am calling a *repro-duction*.

Technics and Time, 2 emphasized the consequences of this analysis for

writing, to which we will return; all of our inquiries into the temporal object in this volume have but extended that analysis. It is important to note that this is what life itself consists of/in: "life" is originarily the capacity for *re*production, not for production, and in fact for reproduction without regard to a prior production; a repro-duction—so that the Creator, the Eternal Father, the First Reproducer, the ungenerated genitor, the Absolute Past, is not properly speaking a re-producer but an *absolute producer*, *inuitus originarius*.

For Aristotle this is because the originary capacity for reproduction is not contained in technics itself but in what produces it—technics is not *autonomous*: nothing produced has "in itself the source of its own production."[28]

The repro-ductive capacity of living things is a prolific source of diversity precisely because a reproduction is never a simple copy but the trans-formation of the (re)pro-duced. But this is true of all reproduction, each time according to its own proper transformative modes. Including technics.

But what must be said of *hyper*-reproducibility, with regard to the current situation? At least four things:

1. *Digital* technology reproduces every kind of data *without signal degradation* and through technical means that have themselves become common, widely distributed consumable goods: digital reproduction is now an intense social practice feeding global networks, given that it is quite simply the condition of possibility of the global mnemotechnical system.

2. This digital reproducibility allows for processing and invisible calculation of the product, opening up possibilities of simulations, manipulations, explorations, experimentations, and completely new projections.

3. These characteristics of the informational world are also characteristics of the biological world, as possibilities of artificial replications, clonings, dreams, and transgenetics that simply replace the "natural" conditions for reproduction.

4. This hyper-reproducibility is also an interoperability that *af*fects, and integrates its *ef*fects, all these forms of reproduction, into an immense system of retentional duplications/replications in which the complementarity of procedures become quickly manifest as a consequence of the development of integrated industrial transmission emerging from the fusing of the global technical system and mnemotechnology.

Hyper-reproducibility is at the same time a hyper-industrialization of

culture resulting from the general dissemination of digital technologies,[29] the integration of all kinds of human activities involved in program industries and charged with promoting the "services" out of which the specific economic reality of the current age is formed, while previously public services, independent economic initiatives, and domestic activities were systematically invested in "the market."

What I am calling "culture" here constitutes the "flesh" of a world, as lifestyles. This mechanism for the integration of services around programmatic flux produced through cultural industries leads from the television receiver to the new organ of tele-action, making the binary codings of information technology possible and, through them, processes, systems, and networks. Digital technology is in fact multifunctional in the sense that binary code is a new "general equivalent," as Dominique Boullier calls it. This "general equivalent" produces unprecedented integrations: systematic, subject to the same rules of calculation and control, the same economic, cultural, and social activities.

The network and its terminals and interoperable services serve as much to disperse information as to distribute works, to administer goods, to drive machines or series of machines, and to give purchase orders (i.e., to engage in economic actions). The hyper-reproducible is what, as general equivalence, gives quasi-unlimited access to the means of reproduction of retentions, at very low cost and with no loss of signal, all while still permitting the automatic articulation of these retentions and the calculations that can be done on them through tele-action mechanisms: teleproduction, electronic business, info-gistics, etc.

The hyper-reproducibility of the *digital* general equivalent makes hyper-industrialization possible in that a process can be called industrial when there is a mobilization of technological innovation issuing from the connections between machine and science, investment in machines, and processes resulting from these technological researches with the speculative research funds for research into the best possible financial returns, amortizing of investment, and the release of plus-value through mass production, serial production engaging in a re-producibility of procedures and production methods whose costs decrease rapidly through the effects of economies of scale and of concurrence between different available procedures. In other words, industry is first and foremost what creates the mass production of pseudo-skills (un-science, false know-how) through the conjoint mobilization of scientific and methodologic

knowledge (the science of engineers), and their progress toward more or less automatizable unities, that are themselves retentional devices—what Marx calls "the force of objectified knowledge."

Today, this reproducibility is multiplied and raised to a new level much higher than automation through digitization. Digital technologies are in fact extremely economical reproduction devices by which a massive transfer of knowledge through automata, a new "intermediation" doing away with numerous "unproductive" expenses takes place, thereby short-circuiting the traditional networks of distribution and exponentially accelerating the return-cycles for investments and for multiple usages.

The current, exemplary IP network is a medium of innovation incomparably more rapid than all the industrial technologies preceding it precisely because of the hyper-reproducibility at the heart of its functionality. Jean-François Abramatic shows that the enormous acceleration of innovation brought about by this infrastructure stems from the fact that it is at once a support for services and a permanent laboratory conjoining development and deployment, "closing the circle linking ideas, prototypes, products, and services" (JFA, 10). This means that the IP network user becomes a function of the system, just as the water that makes the waterwheel-operated factory function is multifunctional and "associated," like the Guimbal turbine.

Contrary to a legend propagated by French sociologists, though there is less smog, or at least less visible smog, pollution is more discrete and no longer only physical but now, and increasingly, mental and informational; as can clearly be seen in businesses with the increasing problem of cognitive overflow syndrome, society is never "postindustrial."

As a "society" of services made possible by the digital general equivalent in which programming industries become the key element of an economic war that is also a war of minds for the conquest of consciousnesses—for the adoption of products, lifestyles, and representations emanating from hyperindustry, hyper-industrialization is a techno-geographic medium in which the differences between interior and exterior milieux can be dissolved in the space of a new commerce that is pervasively a market without mercy or grace[30]—without the unproductive expense and ideal exemptions from payment (which is perhaps only a *cinema*, but a necessary cinema) that always appears to be the prerogative of elementary things: stars, wind, beauty, potlatch, ideas, love of knowledge, mind, etc.

The global process we are investigating here, operating under the name of hyper-reproducibility, as the chief characteristic of the world mnemotechnical system that has joined with the technical system of production of all merchandise, is at once the concrete result and the condition of development of technoscience as the systematic exploration of all possibles: technoscientific performativity is homogeneous with the reproductive dimension of reproductivity.

The Physics of Possibles

In a general way, analysis of any phenomenon consists of formally reproducing it, describing it in a certain terminology defined by a theorematic corpus that calls itself axiomatic. A scientific analysis is already a formal reproduction of analyzed phenomena and can be materialized through (1) the intermediation of a protocol and "phenomeno-technical" experimentation in which parameters can vary, and (2) refining the description of the phenomenon, coming to understand it.

Reproducibility always contains an element of transformation regarding what it reproduces. If we were to imagine that *to describe* is *to reproduce*, the result would be that a description would *always* also be a transformation: there is no such thing as constativity; there is always, in some respect, performativity.

These are the questions posed by the Bachelardian analysis of Einsteinian relativism. In a general way, what Bachelard calls the "new scientific spirit" demonstrates the reversal of the connections between real and possible we have been discussing, as well as the performativity of scientific activity. This analysis results in "a kind of polemical generalization that shifts reason from the realm of the 'why?' to the realm of the 'why not?'"[31] And that means departing from the thought of the object, from the real, and entering into the exploration of the possibles that Bachelard calls the *project*: "above the subject and beyond the object, modern science is based on the *project*. In scientific thought the subject's meditation upon the object always takes the form of a project" (GB, 11–12): the phenomenon is constructed through a phenomeno-technology:

> A truly scientific phenomenology is therefore essentially a phenomeno-technology. Its purpose is to amplify what is revealed beyond appearance. It

> takes its instruction from construction. Wonderworking reason designs its own miracles. Science conjures up a world. (GB, 13)

Euclidean geometry becomes a possibility in the pan-geometry of Lobachevski, for whom it is a "special case" (GB, 28), just as Newtonian astronomy is a special case of Einsteinian pan-astronomy (GB, 44). In relativist physics the observer is a datum in the system observed, relativity that constrains the datum to "incorporate experience in conceptualization." Consequently, "the primitive quality of the pure idea does not survive; we know it only through its composites" (GB, 46).

> The notion of absolute time, or more precisely the notion of a unique measure of time, i.e., of simultaneity independent of the frame of reference, owes its apparent simplicity and immediacy to a faulty analysis, (GB, 46)

writes Brunschvicg:[32] in Heisenbergian relations, or where the experiment researching a minuscule object (such as an electron) "changes the location of the object," "experimentation is thus intimately involved in the definition of what is" (GB, 47). And finally, it is true again that the real becomes a special case of the possible: "with a mathematical organization of experimental possibilities in hand, it is but a short step back to the empirical. The real turns out to be a special case of the possible" (GB, 59).

Chemical substances, as substantial objectification par excellence, are "little more than the *likelihood* of reaction" (GB, 83) within the "law of large numbers," and even "a wave is like a hand of cards and a particle like a bet on the outcome" (GB, 98). According to scientific determinism there is a technical order in nature:

> Determinism is a product of selection and abstraction; over the years it has developed its own pedagogical technique. Determinism demonstrates its validity by reference to simplified, monolithic phenomena: causalism is intimately related to object fetishism. . . . What is striking in all this is that determinism is demonstrated by technical means. Nature's true order is the order that *we* put into it with the technical means at our disposal. (GB, 107–8)

In its turn, Heisenberg's physics "consumes determinist physics" (GB, 120) as a special case of the possible.

As the initial protocol of being's clarifying repro-duction, experience is in the final analysis its repro-duction inside a field of possibles. A performative

dimension always already inhabits it. We must recall that the performative is a statement whose utterance creates a previously nonexistent situation; repro-ducibility is performative in this sense. But scientific experimentation as described here is performative as well. The constative is a statement accounting for a pre-existing condition without transforming it. In this analysis we have extended the notions of experimentation and reproduction as formal, concretized statements, materialized and thus even formalized—beside what Bachelard calls (not "pheno-menon," but) "biblio-menon"—where contemporary physics is going through a crisis of constativity that it must inscribe and analyze within the framework of what Jean-Hugues Barthélémy calls an "exceptionally hermeneutic situation."[33]

Technoscientific performativity is considerably reinforced through the massive use of reproductive technologies as hyper-reproducible (and thus hyper-calculable) tertiary retentions within scientific instrumentation in general.

We have already seen that Husserl denounces instrumentation within the algebrization of geometry, where

> one lets the geometric significance recede into the background as a matter of course, indeed drops it altogether; one calculates, remembering only at the end that the numbers signify magnitudes. Of course one does not calculate "mechanically," as in ordinary numerical calculation; one thinks, one invents, one may make great discoveries—but they have acquired, unnoticed, a displaced, "symbolic" meaning. (CES, 44)

The technicization of science is for Husserl a loss of the meaning of scientific activity itself, a forgetting of its proper questions, to the advantage of objectives and imperatives of technological efficiency—to technoscientific performance. This situation constitutes for him what I have called an "eidetic blindness" of technicized science.

However, I suggest that what Husserl denounces in his Galilean turn was always already there, making it a priori possible and necessary: there is always a retentional substratum for all activity of the understanding and of reason, for all theorization, and for all experimentation, and what the Galilean age makes general is only the extension of the consequences of this primary datum for an age in which a new technics of reproduction has appeared in the space of printing, while the instruments (of remote vision) are already "part of the force of objectified knowledge," of concretized theory in the process of functioning.

Newly Inherited Conditions of Adoption

Repro-ducibility has been at work since the advent of "photogeometry," because of what we have analyzed in a more general way as at work in all synthesis of recognition.

The performativity of contemporary hyper-reproducibility, which has a direct effect on the syntheses forming the flux of consciousness, affects this recognitive synthesis of the apperception of consciousnesses aimed at the programming industry's market, as well as the recognitive synthesis of the apperception of technoscientific consciousnesses at work—a specific organization of this work being obviously induced by this very hyper-reproducibility.

But it also affects all producing knowledges, all reproducers: after the loss of the individuation of savoir faire in workers reduced to the status of neoproletarian servants of machines, this repro-ducibility also becomes a substitute for conditions that until then had been in effect in the agricultural world, in which production had been based on its producers' having mastered its techniques.

The cult, as an exceptional moment of the synchrony (as mutual care) of the *We*, is also the moment of its reproduction: its root word, "cult," appears in both "culture" and "agri-culture," given that they are both conditions of *care* taken in both transmission and reproduction. The industrialization of culture in general, and agriculture in specific, leads to the same concern: that of the modification of the conditions of reproduction—and the fundamental question of *care*. This is also, of course, a matter of illness and health.

It is reproduction itself in the largest sense, at the heart of the process of individuation, that has been affected and expropriated. In France, farmer-activist José Bové has become a celebrity chiefly by calling the totality of the current harmful agribusiness techniques "junk food," a term substantially more dramatic than what I am here calling "malaise"; it is particularly expressive of today's generalized anguish, for the same reasons Plato gives in the passage of the *Protagoras* we have investigated.

The seriousness, and the novelty, of the current dispersion of genetically modified organisms has less to do in this regard with the kinds of alteration they represent for the fundamental evolutionary conditions of living things, including for their sustenance (since if this concern is extremely important it is certainly not new), than with its threat of a radical

expropriation of agricultural grower-breeders to the benefit of industrial agribusiness monopolies; the consequences of this restandardizing could prove to be economically catastrophic as they take control of retentional devices and of selection criteria themselves.

This is precisely the goal of "Terminator," the aptly named grain from Monsanto, part of the systematic integration of the chemical and herbicidal industries, of pesticides and fertilizer, and the biotechnological seed industry; this hyper-industrialization of agriculture, as the seizure of control over germinal retentional entities, has itself been made possible by the retentional-informatic control of genetic analysis, through digital hyper-reproductivity.

The expropriation of reproduction is equally threatening as a result of transformations in animal and human reproduction, the evolution of living beings in general and, more specifically, *parentage*, as a new disruption of the conditions of adoption not only at the level of a *We* through which all human groupings are formed, but at the level of a *We* as proper names themselves, whose transmission from generation to generation is the tracing of a family history within genetic as well as "inherited" dimensions; this displacement is a correlative of the technoscientific disruption currently inverting the order of the real and the possible, the very figuration of the *unengendered genitor*.

The seizure of control of epiphylogenesis by transmission technologies launches a new reproductive age with new forms of *inheritance*. This applies equally to inheritance we call "knowledges": through the understanding and reason that are (were) perpetually exhumed in their principal forms through the history of philosophy and of Western science, as well as economic inheritance (i.e., socialized possessions of natural or artificial worth and the production of goods), cultural inheritance (languages, literatures, artistic techniques, lifestyles, architecture, countryside, etc.), and familial and biogenetic inheritance.

All of these inherited phenomena have been reduced, in the economic sense of the word, when they indicate the industrial unification of credits and debits through which calculations of amortization and productivity are carried out, in industries whose collective ownerships have become anonymous but are "principal" (i.e., stock), for sale, whose price is a matter of perpetual calculation by investors, and which is susceptible to being transferred, bought and sold, at any moment on the international stock market.

An obvious question here has to do with the extent to which this inheritance is *transferable* on conditions allowing it to remain *adoptable*: how, now, to evaluate the indemnities and the returns of such transfers and, more generally, to what extent the individuation processes of all kinds can be maintained without radical disruption by modifications that have become general and are now enormous, brutal conditions of adoption.

Reproductive Rights

This general seizure of control of inheritance, of retentions that can be passed from generation to generation in any form, bring together phenomena as disparate in appearance as the question of author's rights, the privatization of production and reproduction capacities of the farmer and the breeder (who thus becomes day the worker), the commercializing of audiovisual and image catalogues, procreation, the patenting of gene sequences, industrial mergers and acquisitions, digital networks, satellite observation, and even the control of domain names on the Web by ICANN—a new example of American control of global cardinality.

In all these cases, the goal is to create and then to be able to manipulate the conditions by which new modalities of reproduction are defined within the process of digital technological hyper-industrialization, modalities created by digital technology's interoperability and hyper-reproducibility, such that the challenge to industry is always to render a phenomenon reproducible (as a prototype), then to stabilize and optimize the conditions of that reproduction, and finally to produce it serially, producing economies of scale that become mass markets.

Systematic control of modes of reproduction and inheritance means that this logic can potentially be applied to every area of human life and will constitute many of the new markets of techno-industrial development—the "new economy"—whose basis will obviously increasingly be knowledges containing the *reproductive rights*, and with them, definitions of the models of reproduction *processes* as models themselves to be reproduced. The question is, "Who selects, and by what criteria?"

But if it is appropriate to suggest that this situation results in the inversion of the orders of the real and the possible through techno-scientific disruptions that develop into differential criteria for making selections among possibles, the crux of the problem will be

—being able *then* to identify which re-pro-duction comprises all reproductions, and to what degree new capacities for the *production of differences* can be implemented within a context of hyper-reproducibility;

—whether this is an accentuating of industrial synchronization (including the integrated and unilateral implementation of differentiation through repro-duction) that has already been started by traditional (analog) programming industries;

—and whether, in a case that is not simply the augmenting of synchronization nor confirmation of entropy through this skewing, the differences that could be produced would be capable of constituting an *adoptable to-come*, a future.

But writing, the main retentional medium through which "the West" has been constructed, as an exceptionally stable mnemotechnical system with regard to the evolution of technical systems for material transformation and the principal mechanism for reproducing the tertiary retentions that form rationality and Western knowledge in general, has, within the context of this global stability, gone through a period of significant increase in its emphasis on its own reproducibility, which could have been identified at the time as hyper-productivity resulting from the situation that preceded it. It has constituted a politics of the spirit that has normalized a right to reproduction having less to do with the rights of author and editor than with the synchronizing of alphabets and spelling, typography, and the grammar of the diachrony of inherited idioms.

At the beginning of the next volume of *Technics and Time*, we will return to this crucial episode in the history of mnemotechnics, printing itself, in order to see, with Sylvain Auroux, how it invents a theory of language that is also a theory of the subject. We will see how it defines a rapport between the synchronic and diachronic at once a politics of language and a war of minds inaugurating a new age of idiomatic differentiation.

Notes

Introduction

1. Stiegler, *Technics and Time, 2*, 241. Henceforth TT2.

2. This is my opportunity to correct a misprint that had eluded me: "The ambition of *The Fault of Epimetheus* . . . was . . . to show that human being, prophetic being, without qualities, needs orientation [*a besoin de boussole*] precisely to the degree that it is originarily disoriented." "Prophetic" [*prophétique*] was substituted for "prosthetic" [*prosthétique*]. But this typo has its rationale. We are orienting ourselves slowly here, across the various volumes of *Technics and Time*, by examining an *ineluctably prophetic dimension of prostheticity*. This is what volume 4, *Symbols and Diabols, or the War of Minds* (forthcoming) will explore more explicitly.

3. Cf. Simondon, *Du mode d'existence des objets techniques*, 15 (henceforth ME), and Stiegler, *Technics and Time, 1*, 82–83 (henceforth TT1).

4. See ME; Simondon also analyzes these questions in terms of entropy and neguentropy. Simondon saw in digital machines a new neguentropic potential. But we will see in *Technics and Time, 5* how Simondon's analysis, while essential to the case made there, contains a fundamental limitation.

"Neguentropy" is the entropy or syntropy of any living system employed to maintain a low level of entropy. "Negative entropy" was first defined by Erwin Schrödinger in *What Is Life?* (1943), then shortened to "neguentropy" by Léon Brillouin.—Trans.

5. In the final volume of *Technics and Time* I will try to demonstrate why certain of Simondon's premises do not permit him to successfully carry out his project.

6. And we will see that this is basically the same geopolitical critique of North America at work in Heidegger's writings in 1935.

Chapter 1

1. For a further reading of this theme, see Stiegler's recent *Taking Care of Youth and the Generations* (2010), from Stanford University Press. "Taking care" for Stiegler means caring of/for the continuity of generational (collective) individuation possible only through technics—through grammatization. The discussion makes extensive use of Kant's "Answering the Question: What Is Enlightenment?" and the history of European public education since its advent in the late eighteenth century to interrogate the way in which pedagogy, and the educational tradition, has "grammatized," shifting from the oral/familial to the written/public—though grammatization is "writing" in the largest sense: "exteriorized" onto programmed (semiotic) media that, as Derrida points out, has alway*s* been the case with "language," is all the more so in an age of icons, logos, text-messaging, and a general grammatization. The entire notion of the "tertiary" is predicated on its lack of dependence on the "human," but rather on techniques of recording that "transcend" the human in the sense that they are not dependent on any life or life experience but on a collective (i.e., super-individual) medium of ex-pression, in a number of forms, ranging from writing to music to images to sounds.—Trans.

2. "This schematism of our understanding in regard to phenomena and their mere form, is an art, hidden in the depths of the human soul, whose true modes of action we shall only with difficulty discover and unveil." Immanuel Kant, *Critique of Pure Reason*, trans. Norman Kemp Smith (New York: Macmillan, 1965). Henceforth CPR.

The standard French translation used by Stiegler, by Treinesaygues and Pacaud, contains different language: "Ce schématisme de notre entendement, relativement aux phénomènes et à leur simple forme, est un art caché dans les profondeurs de l'âme humaine et dont il sera toujours difficile d'arracher le méchanisme."—Trans.

3. Barthes, *Camera Lucida*, 76, 78. Henceforth CL.

4. Deleuze, *The Movement Image*, 2, 3. Henceforth MI.

5. In the concluding chapter of *Technics and Time, 2*, "Temporal Object and Retentional Finitude." I also maintain that Husserl himself, later on, partially "corrected" this position.

6. Xavier Lemarchand first compared this analysis to the Kuleshov Effect in his dissertation, *Différance et audiovisuel numérique*, at the Université de technologie de Compiègne, 1998.

7. Cf. Albera, Introduction to Lev Koulechov, *L'Art du cinéma et autres écrits*, 11. Henceforth FA.

8. Ivan Ilyich Mozzhukhin (1889–1939) was a leading actor in Russian cinema. In 1910 he left law school at Moscow University to join a traveling theater

troupe. His is the face of Lev Kuleshov's experimentation with image perception employing a film-as-image psychological montage alternating Mozzhukhin's face with other unrelated images; the effect was that Mozzhukhin's face itself seemed to undergo alterations related to the surrounding images, produced by fading memory.

Mozzhukhin left Russia during the Revolution, arriving in Paris in 1919 and quickly becoming a star of French silent cinema, his hypnotic stare appearing on many European film magazine covers. Mozzhukhin wrote his own films in which he experimented with the perception of reality, for example, building sets that made the actors seem much smaller than normal, and juxtaposing incongruous visual elements in scenes (e.g., the camera entering a detective's office to find a chorus line of men in tuxedos waltzing about the room).

Novelist Romain Gary claimed to be Mozzhukhin's son; on a final cinematic note, Gary's novel *La promesse de l'aube* (*Promise of Dawn*), which fictionalizes the story of his mother and Mozzhukhin, was adapted into a screenplay and then a 1970 film directed by Jules Dassin (who plays Mozzhukhin).—Trans.

9. Jean-Michel Salanskis, in his very meticulous assessment of the first two volumes of *Technics and Time* ("Ecce faber," *Les temps modernes*, no. 608 [April–May 2000]), seems to me not to have understood this concluding chapter of volume 2, saying that in it I denounce Husserl's distinction between primary and secondary memories (that is, it must be noted, between perception and imagination). On the contrary, my goal there is precisely to reaffirm this distinction, asserting that it is weakened by the fact that Husserl himself understands it as an opposition. My claim is quite simply that a distinction is not an opposition, and further that this confusion is the origin of metaphysics—to which we will return at length. In this volume, and in volume 5 of *Technics and Time*, we will also return to a number of matters addressed in my good friend Salanskis' article.

10. In Stiegler, *Technics and Time, 4: Symbols and Diabols, or the War of the Mind*, forthcoming.

11. This analysis was first presented in Rome in 1985 at the invitation of Jean Lauxerois and published in *La Revue Philosophique* in 1990 under the title "Mémoires gauches." I returned to it in the first chapter of *Technics and Time, 2*. Here I will extend those analyses, addressing their consequences for the temporal object, initiated in the last chapter of *Technics and Time, 2*, and whose principal results will be further explored within the context of this volume.

12. "il s'agit du Grand Jeu, du plus sérieux: du premier au dernier enjeu, de l'enjeu de tous les jeux"—Trans.

13. Stiegler is playing a *double jeu* here, not only taking Barthes's future anterior to its conclusion but relating it directly to that other multilayered *punctum*: Maurice Blanchot's "L'instant de ma mort," in which Blanchot recounts the

real or fictional narrative of his own "pricking," the reportedly transfiguring experience of having been placed before a German firing squad, only to face a *mock* execution. Blanchot himself is recalling Dostoevsky's 1848 experience of just such a "theatrical" event. The layers of "play" and "playing" involved in "the instant of my death," particularly in light of that impossible first-person pronoun, are parallels to Stiegler's citation of "reality and the past" in Fellini's film and its relation to the temporal object.—Trans.

14. Cf. *Technics and Time, 4*, forthcoming.

15. It should be remembered that *âme*, here clearly "soul," was not for Socrates, nor for Aristotle, what the word has meant in the modern era. The Greek ψυχη, generally rendered in Latin as *anima*, is closer to "life force" or *élan vital*.—Trans.

16. Resnais, *L'Avant-Scène Cinéma*, 7.

17. Elia Kazan's 1951 film released in France with the title *Un tramway nommé Désir*.

18. Victor Fleming, 1939; in French, *Autant en emporte le vent*.

19. Husserl, *On the Phenomenology of the Consciousness*, 66. Henceforth CIT.

20. Ricoeur, *Temps et récit III*, 55. Henceforth TR.

21. Shown as an episode of the television series *Suspicion* in 1957.

22. *The Man Who Knew Too Much* (filmed using two different scenarios) occupies a unique place in Hitchcock's cinema with regard to cinematic temporality, the unfolding of the spectator's and the film's stream of consciousness, but also of the sound track's connection to the images, and with regard to the resulting process of adoption: the pivotal moment is in "real time," during the performance of a piece of music on the screen. The song plays the role of the watch in *Four O'Clock*. A single cry from Dorothy, the heroine, at the crucial moment of an assassination attempt that must take place during the crash of cymbals simultaneously breaks the sequence's real time and that of the music: the concert is interrupted. Dorothy is also a singer.

23. In TT2. For more on this concept, see my "Ce qui fait défaut," *Césure*, no. 54 (1995).

24. This is Husserl's term, in CIT.

25. And what Serge Daney and Jean-Michel Frodon call the cinematic "taming machine" and the "mechanical redemption" effect. Cf. Frodon, *La projection nationale*.

Chapter 2

1. Adorno and Horkheimer, *La dialectique de la raison*, 130. Henceforth AH.

2. Cf. Heidegger, *Being and Time*, § 75 (henceforth BT); and TT2, 271ff. Husserl calls this *Bildbewusstsein*. Cf. TT3, passim.

3. In the first chapter of the "Transcendental Doctrine of Judgment" in the *Critique of Pure Reason*.

4. For the precise sense in which this term is used here, cf. the first two volumes of *Technics and Time*.

5. As Burkhardt Lindner shows (*Pour une théorie de la reproductibilité* [Frankfurt-am-Main: Goethe Universität, 1998]), for example, from Horkheimer and Adorno's viewpoint, "reproduction belongs to the sphere of the copy of a given object," while the reproducibility in Benjamin's sense "does not refer to the realm of given objects"; that is, far from being a simple copy of the real, it adds something constitutive to it. It is this constitutivity of the technics of reproduction, developed through the culture industries that, according to Benjamin, confer on cinema, for example, its analytic force, which goes beyond its powers of alienation—a force that seems to completely escape Horkheimer and Adorno. But at the other extreme, Bruno Latour (*Cahiers de médiologie,* no. 1 [1996]) completely misinterprets Benjamin—I say at the other extreme because Latour reads Benjamin's essay as a case against modernity and technics, while Adorno sees it as a discourse of emancipation through technics—two readings as schematic as they are unfair to a text that on the contrary attempts to confront the enormous difficulties introduced by the question of reproducibility.

6. Cf. "Le temps des attrape-nigauds," *Art Press* (November 1999), *hors serie*; and "Le prix de la conscience," *Le Monde Diplomatique* (August 2000).

7. Charles Cros (October 1, 1842–August 9, 1888) is hardly known today; he missed world fame by moments. Poet and inventor, Cros was a lover of both literature and science; from 1860 to 1863 he was a chemistry professor at the Paris Institute for Deaf-Mutes; his initial scientific interests combined chemistry and photography: in 1869 he presented a paper to the French Society for Photography on a process for producing color photo prints that was the origin of what is still the standard trichrome method. He was also interested in telegraphic technology, presenting a prototype of an automatic telegraph in 1867.

Cros's connection to Edison and the phonograph results from work he did in the 1870s. He was the first to conceive of reproducing sound through a mechanical apparatus capable of registering and reproducing sounds through a device he invented called the *paléophone* (sound from the past). He presented a paper on this hypothetical machine to the French Academy of Sciences in 1877, theorizing that sound waves could be recorded (engraved) onto a metal surface with a stylus attached to a vibratory membrane; it would then be possible to repeat the sounds by activating the (cylindrical) metal surface with the stylus still attached, thus "playing the sounds back." Before Cros was able to follow up his ideas in concrete form, Edison demonstrated—and patented—his first phonograph. Neither Cros nor Edison had known anything of the other's work.—Trans.

8. "When the spectator looks, the camera is inverted—he has a kind of camera in his head: a projector projecting. And furthermore, when Lumière invented the cinema . . . when he invented the [movie] camera, at the same time the viewer served as the projector; the same apparatus served both of them." Godard, *Introduction à une véritable histoire du cinéma*, 145.

9. The cited passage is significantly different in Kemp Smith's standard translation; I have excerpted sections of the salient passage to approximate the passage in Stiegler.—Trans.

10. The French in parallel, the German in series (the first following the second).

11. The second edition of the *Critique* gave Kant the chance to "remove, as much as possible, the difficulties and obscurities that could have given rise to a number of false interpretations into which some perspicuous men fell, perhaps through my faults, while appraising the book."

12. In *The Idea for a Universal History*, Kant writes that "I understand by the public use of our reason that which one does as a scholar before a public that reads."

13. Consciousness is finite just as is the human subject's intuition; that is, it is only a receptacle, unlike God, whose intuition is productive and—according to Leibniz—whose memory is infinite.

14. Preservation, comparison, and differentiation are precisely the fundamental functions of the imagination as Kant defines them in *Anthropology from a Pragmatic Point of View* (1798). One might also mention here Husserl's analysis of writing's role in the constituting of mathematical ideality, an analysis on which I have commented from the same perspective in *Technics and Time, 2*.

15. This unlived past today includes "live" and "real-time" analogic and numeric technologies, the "immediate" or "just-passed" past of what passes as the mediatized event, *which I have never lived*, but which is nevertheless inscribed in my present reality. On this point, cf. *Technics and Time, 2*, 152ff.

16. For more on the concept of "the passive" in general, cf. *Technics and Time, 2*, chapter 4.

17. Geneviève Guitel, *Histoire comparée des numérations écrites* (Paris: Flammarion, 1975), 19–20. Emphasis added. Henceforth GG.

18. It is interesting to note that Jacques Rivelaygue, whom all these questions seem completely to escape, explains that the Kantian category is a "relation . . . [that] constitutes terms," which is precisely the definition of Simondon's transductive relationality.

Jacques Rivelaygue (1936–90) was a well-known philosophy professor at several Paris universities. Luc Ferry said about Rivelaygue that "he was able to make the debates among Fichte, Schelling, Hegel, or Hölderlin clearer and

more important than anything else we could read in contemporary literature." Rivelaygue's chief publication is the two-volume *Lessons of German Metaphysics* (1990, 1992).—Trans.

19. These images, always en route to fetishization, are also the hallucinatory images of the prosthetized, living body as the support of the flux of consciousness, of the body of the other (the *alter ego*), and of corporeality as such.

20. "We cannot think a line without drawing it in our thoughts, nor a circle without describing it."

21. "A new light flashed upon the mind of the first man (be he Thales or some other) who demonstrated the properties of the isosceles triangle. The true method, so he found, was not to inspect what he discerned either in the figure, or in the bare concept of it, and from this, as it were, to read off its properties; but to bring out what was necessarily implied in the concepts that he had himself formed *a priori*, and had put into the figure in the construction by which he presented it to himself" (CPR, 19).

22. Crutches of faith do indeed exist; I will investigate them further in *Symbols and Diabols; or the War of Spirits*. "Without any doubt, hope requires crutches, if we dare to speak of crutches in a religious context" ("Introduction," Kant's *Religion Within the Bounds of Bare Reason*, 14). Henceforth RBR.

23. For more on epiphylogenesis, see *Technics and Time, 1*, 183ff.

24. Heidegger, *Kant and the Problem of Metaphysics* (henceforth KPM), and above all *Phenomenological Interpretation of Kant's Critique of Pure Reason* (henceforth PI).

25. For more on this point, see the final chapter of *Technics and Time, 1*.

26. For more on this point, see *Technics and Time, 4*, forthcoming.

27. Husserl, *Logical Investigations 2*, 83. Henceforth LI2.

28. In that final chapter of *Technics and Time, 2* I tried to indicate why, and I will take it up again at greater length in *Technics and Time, 5*. It is obvious that the "ontological difference," while challenging it, in Heidegger proceeds from this problematic of fulfillment and inadequation.

29. However, in *Directed Ideas for a Phenomenology*, in which he organizes phenomenology around a restored ego, Husserl engages in an even cleaner and more calamitous retreat than Kant's, from the first to the second version of the *Critique of Pure Reason*.

30. This is Pierre Aubenque's point: "In the Introduction of the *Critique of Judgement* . . . , which divides the 'philosophical system' into theoretical and practical philosophy, Kant speaks of 'technical' or 'practico-technical' rules (corresponding to the 'hypothetical imperatives' in Kant's ethical writings) only in order to show once again that they do not arise from practical philosophy but are simply 'consequences of theoretical propositions' and thus 'corollaries of theoretical philosophy.'"

31. These questions are impossible to ignore; I return to this theme at greater length in "Symbols and Diabols" in *Technics and Time, 4*, forthcoming.

32. We must remember here that the verb *eidô* means to see, observe, represent, figure forth, and appear, and that *eidôlon* is the simulacrum, the phantom, the image, and the portrait, even the imagination, etc.

33. As for fulfillment,

> Husserl's Paragraph 5 contains the essential details of the question of inadequation, of fulfillment or completion. All adequate perception is internal perception, but not all internal perception is adequate perception. Between internal inadequate perception and internal adequate perception, there is the tendency toward completion—which can always fail. Internal perception is that of my own experiences. Adequate internal perception is that of some evidence within my experience *of* my experience qua experience *of* evidence: all experience is evident, but not all experience is experience of the obvious. The psychologist, not seeing this, confuses internal perception and adequation. But this distinction allows for the pure and simple elimination, within the phenomenological perspective, of external perception, which no longer has anywhere to be: what the psychologist sees in it is the inadequation of subject and object, the fact that something of the object, in all external perception, always escapes the subject. What must be studied is not the inadequation of the subject and object but that of the always-internal perception that is lived experience, a component of the external object and thus of external perception, to the intended ideality at the heart of experience. The subject's inadequation, qua sphere of internal perceptions, to the object qua source of external perceptions thus becomes the inadequation of an experience's real content that is essentially internal perception, to the experience's ideal content—which is neither internal nor external. Where is it? (TT2, 195)

34. *Apropos* "hypostatized":

> Now it is, indeed, very evident that I cannot know as an object that which I must presuppose in order to know any object, and that the determining self (the thought) is distinguished from the self that is to be determined (the thinking subject) in the same way as knowledge is distinguished from its object. Nevertheless, there is nothing more natural and misleading than the illusion which leads us to regard the unity in the synthesis of thoughts as a perceived unity in the subject of these thoughts. We might call it the subreption of the hypostatized consciousness (*apperceptionis substantiatae*). (CPR, 365)

35. The Kemp Smith translation into English clearly does much less with *aufzuführen*, translating it as "to introduce," thus missing the French translation's more performative (and therefore un-selfsame) sense of the word.—Trans.

36. This is made clear in Philonenko's introduction to Kant's *Qu'est-ce que s'orienter dans la pensée?* Henceforth AP.

37. For more on this concept, see "The Orthographic Age" in *Technics and Time, 2*.

38. "Fosse d'aisance aménagée de façon que les matières se transforment en composés minéraux inodores et inoffensifs." *Le Robert*.

39. For more on the informatic machine, see the chapter "The Industrialization of Memory" and the end section of the chapter "The Temporal Object and Retentional Finitude" in *Technics and Time, 2*.

40. Valéry, "Remarks on Intelligence," in *The Outlook for Intelligence*, 79. Henceforth PV.

41. And there is no reflection that is not erotic, as we will recall in *Technics and Time, 4*, through Plato's *Symposium*.

Chapter 3

1. Herder, *Ideas for the Philosophy of History of Humanity*, 96. Henceforth Her.

2. Cf. Leroi-Gourhan, *Gesture and Speech*, 66. Henceforth GS. See also *Technics and Time, 1*.

3. Bourdieu, *On Television*. Henceforth OT.

4. Plato, *Protagoras*. Henceforth Pro.

5. In the following section Stiegler plays across many senses of *misère*; they are all salient to the discussion at hand. As "poverty" or even "extreme poverty," *misère* relates both to economies of calculation and to those of cultural value. Television makes the viewer poor in world, in senses far beyond those addressed by Heidegger. *La misère sur le monde* conveys the sense of ravenousness of the starving person, poor in nutrition (actual, cultural, and metaphysical), desperate for sustenance. And *c'est une misère* (it is a *pity* or *pitiful*) that this condition exists. Ironically, in general *misère* does not mean "misery," which is generally *malheur*.

Stiegler's two-volume *La misère symbolique* (2004, 2005) traces "the destruction of primordial narcissism resulting from the channeling of the libido of consumers toward objects of consumption" (volume 1), and the presentation of a "general organology and genealogy of the sensible, finally to think through the savagery of our times" in terms of libidinal economy and hyperindustrialization. The themes developed in these two volumes carry the central thrust of *Technics and Time* into related areas, such as art and aesthetics in general.—Trans.

6. Bensaïd, *Marx for Our Times*. Henceforth MT.

7. This is the principal text in Derrida's *Specters of Marx*.

8. It is important here to revisit the position Kostas Axelos takes in *Alienation, Praxis, and Techne in the Thought of Karl Marx* (as discussed with Jean-Philippe Millet and the Collège internationale de philosophie in a colloquy dedicated to Axelos's work): arguing against the school (whether academic or Marxist) that Marx is first of all one who, for the first time, thinks technics philosophically, as the first great blow against metaphysics—as Heidegger (finally) says. Through capital, the thinker of big industry thinks technics as the "beyond" of capital and even of communism.

I share Axelos's viewpoint: that for Marx technics continues finally to be thought as a *means* of production to the extent that the metaphysical understanding of time, which is never questioned, still dominates his thought of technics. Marx, turned against Axelos by Raymond Aron (at his thesis defense, according to François Châtelet, who reported it to me), is the central thinker of capital. If Aron seems not to see that this thought of capital is also and indissociably a thought of technics, it is doubtless because he underestimates a strange convergence between Heidegger and Marx, one that Axelos points out, regarding capital. For Heidegger, capital means calculation, as intermondial temporality, attempting to determine the undetermined. In fact, there is a question of calculation that is common to Marx and Heidegger with regard to technics, and that is also the question of the connection of the undetermined to time (and to death); I will return to this matter in *Symboles et Diabols, ou la guerre des esprits*. In its attempt to reduce capital (i.e., its fundamental impropriety as masked by a discourse on the propriety of bourgeois rights) Marx cannot arrive at the question of the undetermined—of *the end*: of death, of the dead body, and of technics as the reign of the organized inorganic (a différant death through work) that is also what guards the spirit of the dead, of those who have organized it. But *death* is also what Heidegger lacks. It is the connecting of means and ends that must thus remain *in question*. Heidegger and Marx come up against the same difficulty.

From this perspective, the opposition to which Bensaïd points between the Heideggerian ontology of time and the Marxian dis-ontology is too easy (cf. MT, 83). There is, between Marx and Heidegger, an entire community of thought in their critique of a calculation that it is doubtless more interesting to account for as a precondition rather than immediately laying out what seems to place them in opposition. In what they share there is also a common metaphysical haziness regarding the question of links between spirit and matter. It seems that Bensaïd does not understand Heidegger's problematic—his desire to solve the problem of the connection between determination and the undetermined, nor what is involved in an opposition—an impasse—containing the "specter of Marx," so to speak, the very one who wrote that "the dead seize the living"; that is, the machine of capital consumes work's incarnate force.

9. Cf. *Technics and Time, 1*, § 19, and Simondon, *Du mode d'existence des objets techniques*, 15.

10. It is not only Bourdieu, among the enactors of contemporary social critique and "resistance," who seriously neglects the necessity of thinking technicity and underestimates the immensity of such a project. This is also the case with Susan George (*The Lugano Report* or José Bové and François Dufour (*The World Is Not for Sale*). On the other hand, it is greatly to the credit of Viviane Forrester (*The Economic Horror*) that she understood that the current power of capital rests on an intimate knowledge of cybernetic technology seriously lacking in thinkers, activists, and political militants.

11. Leroi-Gourhan, *Milieu et techniques*, 308. Henceforth LG.

12. Valéry, *Regards sur le monde actuel*, 13. Henceforth RM.

13. Ernest Renan, *Qu'est-ce qu'une nation?* (Paris: Pocket, 1992), 141. Henceforth ER.

14. Balibar and Wallerstein, *Race, Nation, Class*, 96. Henceforth RNC.

15. To be sure, in Heidegger the future of the *I* is undetermined precisely because it is not to be confused with that of a *We* (since it would thus wither into the *One*). But it is only as a temporalization of being presupposing a "comprehension of being" produced out of an already-there, solely out of which an "agreement of being," that the authentic future of a simultaneous I and We is possible. In fact, this is no longer a question of an I or a We, properly speaking, but of *Dasein*.

16. Charles-Louis Havas (1783–1858), a banker and translator, began by translating information from around the world and making it available to the French national press. As the newspaper business grew in the 1820s, Havas conceived of a clearinghouse for that information. In 1825, he formed a company to do so, in 1835 naming it the Agence Havas. Focusing on news from the provinces, he was able to monopolize much of its press business by consolidating the entire process of newspaper publication. Havas later changed the company's name to Agence France Presse. One of Havas's employees, Paul Julius Reuter, took his idea to London in 1851, where he founded Reuter's news service.—Trans.

17. I have offered my explanation of this in "Temps, technique, et individuation dans l'oeuvre de Simondon."

18. They belong to a "technical lineage," in the sense in which Simondon uses it (ME) and in my comments in *Technics and Time, 1*; they are metastable—never fully constituted nor individualized, but for the psychosocial individual, insofar as they are part of her pre-individual milieu, they are the super-saturations of the living being and already individuals.

19. Badiou, *Ethics*. Henceforth Bad.

20. For more on this point, see *Technics and Time, 2*, the conclusion of the final chapter.

21. See Orléan's *Le pouvoir de la finance*.

22. In *Technics and Time, 4*, forthcoming.

23. Freud, *Civilization and Its Discontents*, 12–13. Henceforth CD.

24. G. W. F. Hegel, Preface to the *Phenomenology of Mind*.

25. Cf. Plato, *Lysis*, trans. Benjamin Jowett, http://classics.mit.edu/Plato/lysis.html; Aristotle, *Eudemian Ethics*, http://www.perseus.tufts.edu/hopper/text?doc=Aristot.+Eud.+Eth.+toc&redirect=true; Jacques Derrida, *The Politics of Friendship*, trans. George Collins (London: Verso, 1997).

26. "What Nietzsche objects to in Darwin is that adaptation is the negation of invention, and that the theory of the adaptation of media is that of the destruction of exceptions; that is, of the drying up of evolutionary possibilities." Stiegler, *Nietzsche et la biologie*. Henceforth NB.

27. In English in the original.—Trans.

28. Cf. Chapter 2, "Paralogisms and Inadequations in Flux. Review of the Chapter and the Question of Adoption."

29. After having indicated that "one of the most obvious explications, and richest in consequences, of this similarity between America and cinema is that they were both constructed at the same time."

30. De Tocqueville, *Democracy in America*, 29. Henceforth DA.

31. This begins with a condemnation of slavery, in 1690. See Locke, *Second Treatise on Civil Government*. Henceforth JL.

32. "Trade follows films," a comment made to the U.S. Congress (apparently in 1914, though citations of this very important American idea vary between 1910 and 1914) by one Senator McBridge, receives heavy coverage in Godard's *Histoire du cinéma* and in the second part of his *Élogede l'amour* (2001), in which a French couple sells the film rights to their story of the Resistance to Steven Spielberg. Stiegler also deals with it, always in English, in *Philosopher par accident* and in numerous articles.—Trans.

33. This has led to "an immediate and lasting taboo: the prevention of any accurate representation of Indians and Blacks" in cinema. See PN, 120.

34. From "Man has walked on the moon," in Beau, Dubois, and Leblanc, *Cinéma et dernières technologies*, 7–8. This television production echoes, forty-five years later but as the staging of a real event, the films of the Soviet cinéaste Protozanov's "victory of Bolshevik ideals on Mars" (see PN, 46).

35. Mondzain, *Image, Icon, Economy*.

36. The "IP network" is the internet, sometimes introduced by a capital "I" as though it were a divine name, and which should be called the "inter-net" in the same sense in which in English we say "inter-urban." The problem here is that "internet" conceals what it defines: a network of networks made possible by the interoperability among digital infrastructures that all conform to the

protocol called TCP-IP, Transmission Control Protocol—internet Protocol. Thus we call the "internet" network the *IP network*.

37. Thierry Breton recently wrote that television, as conceived by Thomson Multimedia, has become the principal mode of access to the internet. This is also the claim made by Craig Mundie, vice president of Microsoft, since 1997. In fact, the television set is the terminal of tele-action because it is inscribed in a chain of apparatuses with which it knows how to communicate. This apparatus is "a TV of individuals, no longer that of the home," according to Philips's Michel Ayel. The sets Philips is preparing to put on the market are equipped with the digital Philips/Sony I3E1394 card, a port for person-to-person data entry (a kind of diffused data) and access to a vast array of peripherals far beyond the single magnetoscopes in DVD readers. Its download speed, sufficient to dispense with the PC digital channel, can support all internet protocols and can read JAVA: that is, it provides access to all the services of tele-action.

38. Bataille, *Lascaux or the Birth of Art*, 38. Henceforth GB.

39. In the following section, Stiegler cites four French translations of the verse cited in Greek. Because he is dealing directly with the French versions of the Greek lines, I have quoted them, with my own translations of the French; where an English translation of the French translation exists (e.g., Heidegger), I have cited it in the following note(s). For further comparative analysis, I include four "standard" English translations:

> Wonders are many, and none is more wonderful than man. (R. C. Jebb)
>
> Many things cause terror and wonder, yet nothing
> is more terrifying and wonderful than man. (M. Blake Tyrrell and Larry J. Bennett)
>
> There are many strange and wonderful things, but nothing more strangely wonderful than man. (Ian Johnson)
>
> Many the forms of life,
> Fearful and strange to see,
> But man supreme stands out
> For strangeness and for fear. (Harvard Classics)—Trans.

40. Sophocles, *Antigone*, ll. 332–33. Henceforth Ant.

41. Martin Heidegger, *Introduction to Metaphysics*, trans. Fried and Polt, 156. Henceforth IM.

> Man is the uncanny, yet nothing
> uncannier than man bestirs itself, rising up beyond him.

42. *Antigone*, trans. Hölderlin, 47. Henceforth Höl.

43. *Antigone*, trans. Jean and Mayotte Bollack, 29. Henceforth JMB.

44. *Antigone*, trans. Mazon, 96. Henceforth PM.

45. Delbary-Jacerme, "L'exposition de l'existence à la vie nue."

46. Clever indeed, for he masters skill's devices beyond expectation (IM, 157).

47. now he falls prey to wickedness, yet again valor succeeds for him (IM, 157).

48. Cf. *Technics and Time, 2*, chapter 3.

49. Paul Valéry, "Note (ou l'Européen)."

50. It is not certain, however, that the question of "Old Europe" is actually still being asked. Perhaps it is already too late. If this is not certain, it *is* certain that the future is truly transcontinental, far beyond the false opposition of West and East that denies everything outside itself, ignoring all Others that it conceals within itself. Ever since the world was globalized, "the West" has been universal—through the planetary extension of its mnemotechniques, its systems of production, and its markets: there is no longer anything *exterior* to it: it bears within itself various "pockets of insolvency," "abandoned deserts," "condemned and rejected zones," but there is no longer anything "strange" or "foreign" that would be its outside, its limit, the West's frontier. However, it also bears its Other as its end: at the very core of "the West" a process of autoimmunity is at work, as Derrida clearly showed, through which it is annihilating itself. The West (the Occident) no longer has an East (an Orient): it is *disoriented* and will die of it, if it has not already died of it—in its dissemination it is entropizing. The Westernization taking place as global entropization is necessarily also a de-Westernization [or, to speak more like Blanchot, a dis-Westernization]. The West/East division has been reconstituted in its interior as, simultaneously, nationalist madness, sectarianism, extremism in every direction, futureless singularization and isolationism, necrosis and its compensatory suicidal and uncontrollable re-energization: all of this is failed neguentropy. But it also seeks for its renewal in the form of a "new international" as the affirmation of a hitherto-unknown struggle to find some way to manage, beyond all known frontiers and borders, other frontiers that are themselves still very improbable. I fear that Europe, as a political "project" that will never have succeeded in becoming a dream, let alone its fulfillment, is already linked with its past in this regard: that it no longer has even a secondary place in what we are here calling the future—insofar as it is not part of "becoming."

51. Derrida, "Declarations of Independence," 9–10.

52. Cf. the fourth proposition of *The Idea for a Universal History*.

53. On the notion of "event-ization," see *Technics and Time, 2*, 115ff.

54. This occurs through the play of retinal persistence (not to be confused with primary retention, but that makes physiological and technical effects possible apart from tertiary retention).

55. This produces a quasi-consciousness in the sense this verb, "to produce," has for the cinema: to *finance* it.

56. I.e., *Bildbewusstsein*, Husserl's term for what I have called tertiary retention.

57. The preceding is a summary of pp. 241–42 of *Technics and Time, 2*.

58. The slow pace with which important functionaries and French politicians responded to this problem demonstrates the degree to which they continue to be either completely unconscious of this reality or profoundly lazy, not to say cynical, in the face of a mechanism that is also the organ of the production of their own personal images. This ability to control by those who are supposed to guide the course of public life by what has become a massive reality in the public sphere is obviously a direct effect of the industrial mastery of the production of tertiary retentions, insofar as they finally constitute the object of the political milieu itself.

59. UMTS frequencies enable the transmission of hypermedia information on mobile radio and television frequencies, which are becoming the common receivers for the flux of audiovisual programs and access terminals for IP networks.

60. These are the networks capable of transmitting the television image on the commutated telephonic network, and thus the distributor of audiovisual programs by computer without going through standard broadcast sources.

61. In 1998, the company Avid Technology, a global leader of virtual production, put a product on the market that integrated HTML images onto the network, through the "HTML track," a track running alongside the sound track facilitating the creation of the production of the first links between sitemaps and programming sequences on the one hand, and internet service—including commercial services—on the other.

62. Schiller, "Toward a New Century of American Imperialism." Henceforth HS.

63. Cf. Brzezinski, *Between Two Ages* (henceforth ZB); and Armand Mattelard, "How the Internet Myth Was Born," in *Le Monde Diplomatique*, August 2000.

64. Though this timetable was extended to 2009, the changeover has in fact taken place. See http://www.dtvanswers.com for detailed information regarding the change.—Trans.

65. As of now, and particularly in light of the conquest of the market by recent optical devices emerging from laser technology, the DVD, American industry imposes multilingualism on such production (in up to seven languages) in order to ensure an immediate global diffusion of its nationally oriented programs. But the digital is the possibility of creating television systems and archifluxes of programs on a global scale—and, properly understood, of American origin and conception: this is the reason for the AOL–Time Warner merger. Analog broadcasting was territorial from necessity; because digital broadcast-

ing knows no barriers and allows for the integration of all kinds of networks, it drives the globalization of audiovisual broadcasting.

66. "Satellite navigation techniques had been developed by the United States and the Soviet Union for military purposes. But the effects of these systems on numerous human activities is so extensive that today they have largely overflowed their initial purposes and have tended to be placed at the service of big consumption and used in many sectors of the economy. Satellite navigation appears as a 'linkage' that is strategically very difficult to avoid, not only in all stages of spatial and aeronautical systems, both civil and military, but also in other domains that are essential to the economy (telecommunications, transportation, banking networks . . .). Control of the entirety of civil aerial navigation for GPS is another goal. But this technique is today the prerogative of the United States. The White House declaration of March 1996 placed GPS under the authority of the US Air Force. In the short term, the existence of a global monopoly of satellite navigation aims at creating a relation of strategic dependence in a number of domains relevant to national security and national sovereignty." Jacques Blamont, "Space, the Major Stake of the Information Society," conference published in *Le Monde*, September 20, 2000.

67. Abramatic, *Developpement technique d'internet*, 15. Henceforth JFA.

68. In July 2000, Catherine Tasca's response to it, as minister of culture and communication, was quick, clear, and negative.

Chapter 4

1. I explored this theory of Bernard Gille's in "Theories of Technical Evolution," in *Technics and Time, 1*.

2. This is demonstrated by a call for proposals from the European Commission, announced on September 19, 2000, in Brussels, in the course of a symposium on the CPA (Cross Program Action), rather incredibly called "Systems of Info-mobility and Intelligent and Omnipresent Geographic Information." I have myself developed this problematic in a report sent to the General Secretariat of the French government on March 31, 2000, "Note prospective sur l'évolution des conditions d'aménagement du territoire dans le contexte de la société de l'information et dans le domaine culturel" [Note on the Evolution of the Conditions of Territorial Development in the Context of the Information Society and in the Cultural Context], available at www.pm.mtic.gouv.fr.

3. TT1, chapter 1.

4. I have touched on these objects frequently, notably in an article in the *Grand Larousse annuel*, "Réalité virtuelle et phénoménologie," 1994.

5. But to be clear: this "re-territorialization" is not at all a reversal of the current direction but an enrichment of deterritorialization. As I asserted in TT2, a

territory is formed in its extension and its enrichment through the multiplication of its internal and external points of contact and, from this point of view, there is no such thing as "territorialization" as an increase in the number of inhabitants in a given space, but only to the degree that there is also an equivalent deterritorializing movement: reduction of numbers of inhabitants elsewhere.

6. This is also why it is possible to envisage giving each user a definitive and universal user number, canceling the subscriber numbers currently assigned to hardline devices or to any devices themselves, which would cancel the vast majority of numbers, thus facilitating the geo-referencing of each user as a datum.

7. Cf. TT1, chapter 1.

8. Landes, *Revolution in Time*, 53. Henceforth DL.

9. Jacob, *The Sovereign Map*, 29. Henceforth CJ.

10. In *The Sovereign Map*, Jacob points out that the "Bedolina Map" is the oldest known example of the relationship between the *location* of a map and its *function*. The rock outcropping in northern Italy on which the petroglyphs appear contains many incisions; the 130 or so that form the map of the valley floor below mark out roads, farms, houses, etc., all long gone. Jacob says that "the map schematizes the real by means of categorizing. . . . [It] multiplies the signs that distinguish it from reality. Where space is an assemblage of landscapes with infinite differences, a map introduces a ruling order with categorical constants" (23), determining its "codes of figuration" as a "speculative process in which the graphic mechanism attests to the symbolic violence inherent in every model, that is, to the transformation of real space into a figure ruled by laws of reason and abstraction, of the conquering appropriation of reality by means of its simulacrum."—Trans.

11. I have looked further at the phenomenological consequences of Jacob's conclusions in "Être là-bas," Alter no. 4, *Espace et Imagination* (1996).

12. The global marketing project the United States has launched around the *fête des Morts*, the Day of the Dead, All Hallows, Halloween, is a perfect example of this, and worth a closer analysis.

13. Cf. Heidegger, *The Basic Problems of Phenomenology*.

14. See TT2, chapters 2 and 4.

15. Gérard Granel employed this sense of the word in a course at the University of Toulouse in 1980 devoted to *Phèdre* and *Phédon* entitled "Invention of the Soul [*âme*]."

16. Cf. Granel, *Le sens du temps*.

17. In *Technics and Time, 4*.

18. See Chapter 3 in this volume.

19. This is the place to dispel any misunderstanding regarding this concept. I am referring to "modernity" in a different sense from the one used in analyzing the Industrial Revolution, as employed in Chapter 3 above. The modernity

I am speaking of here, as a characteristic of a particular philosophical age, *conditions* the appearance of industrial modernity yet is not the historical, social, economic, or political reality of that modernity consisting of a new process of adoption. Jean-François Lyotard addresses this modernity as the "postmodern," since the postmodern is only an avatar of industrial modernity, a *deceptive age* of modernity in which, since it is no longer a progression projecting a *We*, increased industrialization enacts an inversion of its signs. But in fact we would be more accurate to speak of hypermodernity or ultramodernity since far from entering into a supposedly "post-industrial" society we are in a time of *hyper*-industrialization: the submission of all retentional mechanisms, including the biological, to industrial exploitation, and thus the submission of the time of consciousnesses and their physical supports to the new markets opened up by technoscientific advances. To describe postmodernity as being outside modernity would be to overvalue the definition of modernity in a periodization of the history of philosophy and to undervalue the immense effect of the Industrial Revolution as a rupture. The chasm between Rousseau and Marx is an infinitely greater one than that between Nietzsche and us, though this does not mean that "postmodernity" is an empty concept: *The Postmodern Condition* is a very important book. However, it is vital precisely to situate its interest in and sense of this deceptive age of modernity.

20. Jules Ferry's educational theories are extensively explored in *Taking Care of Youth and the Generations* (Stanford University Press, 2010). See particularly part 1, § 16, "Democracy as the political organization of care, and the new responsibility of public power faced with declining growth," and the notes to this section.—Trans.

21. On the complex articulation between instruction and industrialization, where the latter seems in many cases to have hindered alphabetization, at least initially, see Furet and Ozouf, *Lire et écrire*, 259–69.

22. Cf. Kant, *Education*.

23. This in turn requires an institution that can address a juridico-epistemological problem, as Catherine Kintzler shows in *Condorcet*, 32.

24. The 2000 Vancouver conference brought instructors together from all over British Columbia to discuss the hypertechnology then taking over the classroom and the education system in general. This is the conference summary:

> In May 2000, the Coalition for Public Education brought together educators, parents, students, support workers, administrators, and other conscientious citizens from around British Columbia to learn about the commercial intrusion into the public education system, and to develop plans for stopping and reversing the corporate takeover of schools, colleges, and universities. The *Public Edu-*

cation: Not for Sale! conference was designed to counter the World Education Market, an international corporate extravaganza held in Vancouver to create opportunities for private corporations to profit from public education.

Drawing on expertise from all over North America, the *Public Education: Not for Sale!* conference put local battles over corporate sponsorship, exclusive marketing arrangements, and commercialization of curriculum and research into a global context; demonstrated the harm created by corporate intrusion into classrooms and campuses; provided examples of where such commercialization has been successfully resisted; detailed the means by which corporate influence can be uncovered and fought; and exposed the myths used to justify the dismantling of the public education system.—Trans.

25. Emphasis has been added to Nietzsche's phrase, part of the title of the 1872 lecture series he delivered in Basel whose full title is *On the Future of Our Teaching Establishments*.—Trans.

26. The philosophy of Leibniz, mathematician and anticipator of digital synthesis as *Characteristica Universalis*, is the thought of this constitutive *concision* of knowledge. In *Technics and Time, 5* we will examine this question of condensation and concision through Bergson.

27. The French system differs significantly from the American one in nearly all of these levels, but particularly at this one: the French ENS has no American equivalent, nor do the *maître* (though this is close to the master's degree) and *professeur agrégé* designations.—Trans.

28. The American system is, of course, quite different from the French one: it is far more diffuse, less regimented, and oriented (to use Stiegler's central metaphor) quite differently. Far fewer "controls" determine what professors teach, and the various disciplines and fields are more autonomous. At the secondary level, despite the legacy of Bush's "No Child Left Behind" policies, involving "teaching to the test" and thus leaving immense numbers of children behind, lack of concerted "canonical" teaching remains. In the American "federal" political system, this diversity is seen as a strength: regulated state by state and only loosely associated nationally, the fundamentals of public education vary enormously, and any inclusion of "values" education is either championed or vilified. In fact, the mnemotechnological nature of the American system generally, and its relationship to public education in the United States, is the chief case in favor of Stiegler's thesis regarding the insidious nature of the displacement of a system of education by one of mechanical mindlessness.—Trans.

29. And not only by mere know-how, simple skills, but even by specialized marketing that is in some respect metamarketing, in which the political is less the charge of *conceiving* of "change" than of *selling* it.

30. Nietzsche, *On the Future of Our Educational Institutions*. Henceforth FN.

31. Regarding the rapport between science and the media, Nietzsche writes: "In all matters of a general and serious nature, and above all, in regard to the highest philosophical problems, we have now already reached a point at which the scientific man, as such, is no longer allowed to speak. On the other hand, that adhesive and tenacious stratum which has now filled up the interstices between the sciences—Journalism—believes it has a mission to fulfill here, and this it does, according to its own particular lights—that is to say, as its name implies, after the fashion of a day-laborer. . . . The newspaper actually steps into the place of culture, and he who, even as a scholar, wishes to voice any claim for education, must avail himself of this viscous stratum of communication which cements the seams between all forms of life, all classes, all arts, and all sciences. In the newspaper the particular educational aims of the present culminate, just as the journalist, the servant of the moment, has stepped into the place of the genius, of the leader for all time, of the deliverer from the tyranny of the moment" (FN, 23).

32. "L'instruction publique obligatoire"; within the context of Stiegler's case regarding the "obligations" of a proper educational system, it is worth noting that this *obligatory* system becomes "compulsory" education (as opposed to "*im*pulsive" perhaps?) in the United States. The relationship of *obligatoire* and "compulsory" to "mandatory," "required," or even "necessary," in terms of the evolution from *scientia* to mnemo-techno-science, is also worth noting. What we have discovered in the contemporary world is precisely that public education, in its idealized Enlightenment form, is *not* any of these things, but rather a product, no more nor less. This has resulted, for example, in my own University of California system, to an increasing sense that what we offer is job-seeking techniques and skill sets; "critique" has come to seem quite anomalous.—Trans.

Chapter 5

1. Stiegler's *mondanéité*, "in-the-world-ness," which as he points out is Heidegger's *In-der-Welt-Sein*, has a different valence from "worldliness" (*Weltlichkeit*); the distinction will continue to be made here.—Trans.

2. However, he will make reference to radio nine years later, in the *Introduction to Metaphysics*, which we will examine in the last chapter below.

3. While I was putting the final touches on this book before sending it to Galilée, I received a book by my friend Philippe Choulet, co-written by Philippe Rivière, *La Bonne École: Penser l'école dans la civilisation industrielle* (Seyssel: Champ Vallon, 2001). It lays out many promising proposals that I did not have sufficient time to finish reading before I wrote this note. On the

other hand, I was surprised to find there a discourse on adaptation that did not at all conform to what I understand to be Philippe Choulet's Nietzschean affinities: "functional adaptation of the industrial real is the sole condition for a true Renaissance of knowledge" (14). Though the authors claim that "the word will be surprising," they refer to the word "functional." But it is certainly not the functional necessity that appears problematic to me here, but the *adaptative* program. And in fact, could the work done in this section offer us, to Philippe Choulet, Philippe Rivière, and me, the opportunity to engage in discussion of these questions at the level of the rest of this excellent work?

4. "A crisis is the passage from one particular mode of functioning to another; a passage made perceptible by signs or symptoms. During a crisis, time seems to change its nature, duration no longer gives the same impression as in the normal state of things. Instead of measuring permanence it measures change. Every crisis involves the intervention of new 'causes' that disturb the existing equilibrium, whether mobile or immobile. How can we fit the idea of crisis, which we have now briefly reviewed, with the notion of *intelligence*?" (PV, 72–73).

This suggestion confirms the program of functional questions proposed by Choulet and Rivière. But how could we not note the crisis troubling Valéry's mind and on which he is concentrating in 1925, that he had already questioned in 1919, and that Nietzsche had addressed in 1872 in confronting "our teaching institutions"; how not now that this crisis has been going on for more than one hundred and twenty years? In other words, the question does not regard the reversal of the connections between permanence and variation, which would be putting into crisis the very concept of crisis. It would also, moreover, be the question to which one would have to object in advance of all "new critique," and thus of all criteriological surprises. And this is why, as we shall see in what follows, the object of this new critique is before all else the very possibility of a reversal—of a reversal of the concept of "possibility"—and further, of the concept of "cause," operating out of a retentional mutation.

5. "It opposes the past to the present, future to past, possible to real, image to fact. It is at once what precedes and what follows, what constructs and what destroys; what is chance and what is calculated; it is thus what is not and the instrument of what is not. It is, finally, the mysterious author of these dreams about which I am speaking to you" (PVO, 1002).

6. Valéry, "Note (ou l'Européen)."

7. Kant, *The Critique of Judgement*, 10.

Chapter 6

Sections 1–6 of "Technoschience and Reproduction" appeared in *Parallax*,

no. 54 (2007), trans. Raphael Winkler. The section is part of a volume devoted to "technics and chance," ed. Marcel Swiboda and Peter Kilroy. My translation is independent of this version, though of course many similarities occur.—Trans.

1. "Art loves chance, and chance loves art." Aristotle, *The Nicomachean Ethics*, 156. Henceforth NE.—Trans.

2. Aubenque, *La prudence chez Aristote*. Henceforth PA.

3. In the following section a phenomenon that has been covert throughout *Technics and Time* becomes overt: the play with the various senses of *pli*, "the fold," and *plier*, "to fold or bend." Aside from the more contemporary Derridean senses of *pli* as both fold and hinge, Stiegler ap-plies this wordplay more directly: "pli"-as-fold implies difference, if not division, at least as difference-at-the-origin; to "ap-ply," then, means "to fold in" or "to un-fold"; this hidden sense might be applied to "comply," "multiply," "supply," etc., as well as to "duplicate," "replicate," "complicate," etc. The occluded reference to the *plié* in "technoscience" and "mnemotechnics," as "applied duplicities," should not be lost. I have followed Stiegler in *dashing* the singularity of a number of instances of the *pli* in this section by maintaining his punctuation. Were we to listen to Blanchot, we should apply this strategy of the *pli* retroactively to all of *Technics and Time*.—Trans.

4. Transmuting *s'orienter* into a gerundive, though risky, is an attempt first to avoid "being oriented," given the multiplicities of "being" throughout the text, and second to make use of the gerund to indicate something of the double process of motion and unmotion Stiegler investigates with regard to cinematic consciousness. The previous chapter's exploration of motion, mobility, and motricity, which is juxtaposed with Kant's implicit unmoved mover, I hope allows for the grammatical challenge.—Trans.

5. Cf. TT1, chapter 1.

6. Holst and Philips: The global electronics giant was founded in 1891 by Gerard Philips, ironically a cousin of Karl Marx in the Netherlands. It capitalized on American, French, and other inventions, producing electro-technical equipment. From the beginning, when the company began manufacturing incandescent lamps in 1891, it already had a separate, internal "industrial research laboratory" outside but "parallel to" the factory; this was an idea unknown in the manufacturing world. In 1913, this laboratory was expanded with the opening of a physics laboratory (the "Nat. Lab."), enjoined to do "pure research"; given that it was "underwritten," this was again innovative; the Nat. Lab. was directed by Dr. Gilles Holst, whose name is currently on the latest iteration of the lab. The Philips Research organization and the Holst Lab have become global leaders in technical innovation. Invention of the pentode in the lab in the early 1920s provided an early patent in radio; in

1923, Philips became a "systems supplier" instead of a "components company"; as a result, its research organization broadened its scope into radio as well as television and beyond. It is still a world leader in electronics and technoscience.—Trans.

7. Prigogine and Stengers, *La nouvelle alliance*. Henceforth NA.

8. "Feasibility" in French is *faisabilité*, derived from *faire*, "to make or do"; the "feasible" is the "do-able," what "can be made"—or what is *possible*.—Trans.

9. Kant, "On the Common Saying," 277.

10. I examine this closely in *Technics and Time, 1* and will return to it in the final volume.

11. Jean-Joseph-Étienne Lenoir (1822–1900) was a self-taught chemist and inventor of the first practical internal-combustion engine. Throughout the late eighteenth and nineteenth centuries, many innovators had imagined an engine in which combustion would take place directly within a cylinder and drive a piston: as early as 1824, French physicist Nicolas Carnot (1796–1832) had published drawings for such an engine, but a *practical* (not "merely" theoretical) internal-combustion engine was not possible until later in the century when proper fuels (e.g., refined petroleum products) became available.

Lenoir built the first practical engine in 1859: a two-cycle, one-cylinder engine fueled by "illuminating" (i.e., coal) gas. The Lenoir engine underwent numerous refinements but was too small and inefficient to power a "car"(-riage), or even a boat, successfully. It was used successfully, however, to power small machinery such as printing presses, lathes, and pumps. He also invented the automobile spark plug, which remains essentially the same today.

Lenoir's work was not underwritten, and despite his enormous impact on today's world, he died a poor man in 1900.

The diesel engine, which did/does not rely on a spark for ignition but on compression, was not invented until the 1890s; it was originally intended to be run on derivatives from farming and to free farmers from reliance on oil and gasoline. What we now call "diesel fuel" has nothing to do with that original intent: the term was co-opted by Standard Oil.—Trans.

12. Jean-Hughes Barthélémy cites this passage in his own work that brilliantly promises an authentic renewal of the philosophy of science. Cf. *L'idée de rélativité philosophique chez Simondon*.

13. On a visit to introduce himself to Lessing in 1780, novelist and philosopher Friedrich Heinrich Jacobi (1743–1819) engaged his host in a conversation in which Lessing reportedly (by Jacobi) declared himself to be a Spinozist. This alleged declaration, made just months before Lessing's death in 1781, precipitated an exchange of letters between Jacobi and Lessing's friend Moses Mendelssohn (1729–86), a promulgator of the *Aufklärung* known as the "German

Socrates," on the nature of philosophy in general and Spinozism in particular. The epistolary exchange began in 1783, Jacobi questioning the nature and value of the new humanism being sponsored by the Enlightenment. The letters, complete with commentary, were published in 1785, by Jacobi, under the title "Concerning the Doctrine of Spinoza in Letters to Herr Moses Mendelssohn," and quickly became known as the "Pantheism Dispute." Mendelssohn responded to Jacobi in 1786 but died shortly thereafter. Jacobi responded to Mendelssohn's reply. Both publications were angry, highly personal, and widely read throughout the German Enlightenment and beyond. Goethe said that the controversy touched everyone in their deepest convictions.

Appropriate to the Stiegler's discussion here, Jacobi energetically attacked Kant's transcendental idealism in his book on David Hume and faith. Jacobi's critique declared that in Kant's presupposing the *ding an sich* as unknown, but giving it many functions in the transcendental system, Kant actually "knew" it and was thus in a state of contradiction. Ironically, Jacobi admired Kant and was hurt when in the Pantheism Dispute Kant sided with Mendelssohn (deceased).—Trans.

14. When it becomes experimental it is given instruments that perhaps already "compromise" its purity, but it is not conscious of this.

15. I developed this point at greater length in *Technics and Time, 2*, chapter 3.

16. This is the case I attempt to make throughout *Technics and Time, 1* and *2*.

17. I have been exploring this issue by analyzing the culture industries and consciousness itself; see *Technics and Time, 2*. In this regard, Sylvie Lindeperg's *Clio de 5 à 7, Les actualités filmées de la Libération: Archives du futur* (Paris : CNRS Editions, 2000), is very useful.

18. See note 3.—Trans.

19. William Joy, development director of Sun Microsystems, denounces this possibility in an article in *Le Monde*, July 5, 2000.

20. This concept of missionary zeal has recently been taken up by the incredible expanding Chinese market economy, which is rapidly exploiting its numbers and growing wealth in Africa through a new kind of colonialism, precisely modeled on the "missionary." Potential dissidents are being given incentives to work and to profit in Africa, and to keep significant amounts of that profit. China, of course, reaps natural resources, a percentage of the émigrés' profits, and a growing population of Chinese on the ground in Africa. All with neither the shock and awe of an army (or mercenaries) or drone aircraft.—Trans.

21. We will confront more on this matter in *Technics and Time, 4*.

22. Cf. Auroux, "Vers la troisième révolution techno-linguistique," 155.

23. This is also a *logistical optimization* of what Pierre Legendre calls the "censor."

24. This is thus the industrial exploitation of what I have called the industrial hyper-reproducibility of the synthesis of recognition (see the section entitled "From Possible to Real: Performativity of Techno-Science-Fiction" in this chapter). Industrial hyper-reproducibility benefits from digital mnemotechnology where the cost of reproduction tends to be negligible.

25. Pro-duction, re-pro-duction, trans-duction, etc. Once again the valences of motion and stasis are at play, within temporal, spatial, and conceptual contexts. Simondon's "transduction," literally "leading across," has morphed into "leading forward" (production) and "leading forward again" (reproduction). "Production" is etymologically an expansive performative, let alone "hyper-repro-ducibility," each segment of which expands further into global digital atomization.—Trans.

26. Benjamin, "The Work of Art in the Age of Mechanical Reproduction," 218. Henceforth WB.

27. Adorno, *Aesthetic Theory*.

28. Aristotle, *Physics*.

29. Digitization is something other than what in 1977 Simon Nora and Alain Minc called informatization: a digital device such as a digital camera is not necessarily a computer even if it can and must be compatible with a computer—and even more important, with the network of networks linking computers to each other. Digitization is precisely the conjoint development of informatics, telecommunications, and the audiovisual—and, beyond that, with all sorts of communicating areas of household appliances, autos, "nomad" objects, etc. This phenomenon's novelty results from this conjunction, through which a complex technical system supporting thousands of activities and in which the culture industries and tomorrow's programs for central devices of production and diffusion will develop.

30. A healthy and rich market can become the basis for courtesy, urbanity, and gracious refinement, always in the view of the sumptuary who does not count or who counts only in order to dispense nothing more than reason, to give without return, as can be understood in the common root of *merces* and *mercis*.

31. Bachelard, *The New Scientific Spirit*, 7. Henceforth GB.

32. Bachelard is quoting Léon Brunschvicg in this passage.—Trans.

33. Where "sensible intuition can no longer fill its formalism in order to give it a meaning . . . this last [being] consequently results in interpretation" (Barthélémy, "L'idée de relativité philosophique chez Simondon," 249–72), and for which Simondon thinks relativistic physics as transductive, the elements of which are individuals, though individuation is thought as "quantum leap."

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